

# THE CULTIVATOR.

"TO IMPROVE THE SOIL AND THE MIND."

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## Sketches of Farms.

### The Farm of the Hon. Daniel Webster.

EDITORS OF THE CULTIVATOR—In the month of October last, I spent a day upon Mr. WEBSTER's farm, at Marshfield, in Plymouth county, Mass., and although I was not so fortunate as to find him at home, my disappointment was much lessened by the polite attentions of MRS. WEBSTER; attentions which good sense and genuine hospitality ever suggest. Mrs. Webster evidently takes a lively interest in agricultural improvements,—as all *farmer's wives* should do,—and the general cardinal principles of good farming are, with her, familiar topics. I shall not be able, at this time, to speak of Mr. Webster's farming, with that particularity which I could wish; but promising myself the pleasure of accepting his polite invitation to repeat my visit in the spring, at a time when he may be at home, I shall hope to make further comments with more minuteness.

As a Statesman and Orator, Mr. WEBSTER is thoroughly known, at home and abroad; but it is not, perhaps, so generally known that he adds to the other branches of his extensive and varied knowledge, a thorough acquaintance with the practical principles of Farming. Indeed, upon this subject, he is as much at home as upon any matters of law or state in which he is so much distinguished; and nothing affords him more true pleasure than the personal supervision of the farming operations on his estate, and social and familiar discussion of the principles of good husbandry with his brethren of the plow. He retires from the noise and bustle of the world, and the wearing duties of public life, during a winter at Washington, to his pleasant and modest country seat, with much delight; and here—the affairs of State all laid aside, and his mind let down to the humbler, but more genial concerns of husbandry and domestic life—no man can be more easily approached. Here, he is ever ready to impart or to receive information upon practical matters of common life; and none can be more cheerful and familiar in all that pertains to agreeable companionship, than the yeoman,—the Farmer of Marshfield.

The farm of Mr. WEBSTER consists of some twelve to fifteen hundred acres, over two hundred of which are in an improved state of tillage, and the remainder is salt-marsh, pasture and wood-land. The estate is made up of several smaller farms, with the buildings still remaining, which are leased to the men in his employ, the whole being among the oldest settled lands in New England. The soil generally, in this region, is a thin sandy and gravelly loam, resting upon a loose and porous subsoil; and those portions that still remain in an unimproved state present, after the drouths of summer commence, a brown and most sombre appearance. Plymouth county, at best, has a stern and hard

soil; and much of the land has not apparently, been improved by the long course of wearing tillage it has received. Mr. WEBSTER has directed the attention of his neighbors near the sea-board, to a more full appreciation of the rich fertilizing treasures which the ocean affords, for the melioration of their light, hungry lands, and no doubt improvement will be seen in consequence.

The mansion-house, a little elevated, is situated in the midst of an extended and richly diversified plain, with a somewhat broken surface. In a westerly direction, this plain rises gradually, terminating in a hill of considerable altitude, which commands a full and charming view of the whole estate. In the opposite and easterly direction, it lies open to the sea, affording from the house, a fine view of the ocean's broad expanse, from which it is distant about a mile. The house stands back some forty rods from the public road, and is approached by a broad avenue, lined with a flourishing and well-trimmed hedge, and a variety of forest and ornamental trees, mostly planted by the proprietor's own hand. It is of two and a-half stories, with a broad and tasteful piazza on two sides, the borders of which are ornamented with climbing and ornamental shrubs. The upright part of the mansion was built by a man of wealth some 70 or 80 years ago. To this Mr. WEBSTER has since added a spacious library-room in the rear. Here may be found the thoughts of gifted minds of past ages, as well as the choicest productions of the present time. There are several fine pictures in the room, among which were noticed full-length paintings of Mr. WEBSTER and Lord ASHBURTON. This Library, with its countless volumes, struck us as worthy of its owner;—a fitting place for the retirement of his noble mind, where it could commune with the choicest thoughts of other gifted men, or carry on its own peculiar work of great thinking. There has been no effort at display, either within or without the mansion; but the whole has an appearance of comfort and convenience, reminding the visitor, as some one else has well remarked, of Cicero's description of a house fit for the residence of a distinguished and respected character:—"It is neither small, mean, or sordid, nor enlarged with profane and wanton extravagance."

The barns and other out-buildings are well and durably constructed, and very conveniently arranged. The most unexceptionable neatness and good order prevail in every department at the barns.

Mr. Webster purchased this estate, and commenced his improvements, about fifteen years ago; the land then being in low condition, and affording but scanty harvests, the result of a wearing husbandry, almost from the landing of the pilgrims. He now cuts over two hundred tons of upland hay, besides a large quantity of salt-marsh. His pastures support about one hundred head of cattle, and some sheep. The

brown and dry knolls have many of them been covered with a lively green, by an improved tillage.

**IMPROVEMENT OF PASTURES.**—It appears to have been a favorite object with the proprietor, to improve his pasture lands; thereby increasing the amount as well as the quality of the feed. Much of this soil is naturally very light and thin, and the surface being quite broken into knolls, the land, in its unimproved state, evidently suffers severely from drouth. He has been constantly and steadily progressing in the improvement of the pastures, and now many of them afford fine ranges for the stock. These improvements have been made in a variety of ways. Buckwheat, and other green crops have been somewhat used, with good results; but the main dependence has been upon the rich fertilizing materials afforded by the sea. The kelp-weed, of which I shall presently speak, possesses wonderfully enriching power on these light soils. The fresh appearance of the knolls, which have been covered with a verdant herbage by the application of kelp, in contrast with those which still retain their brown and seared surface, is quite pleasing to the eye of the observer, as it no doubt is to the taste of the cattle. The menhaden fish have also been largely used on these lands, and some of them, which were dressed with this fish several years ago, still maintain a thick and superior herbage.

I noticed a pasture-field of several acres, embracing a high and dry knoll, with little or no feed of much value upon it, which was under a course of improvement. A very heavy coat of swamp-muck had been hauled on to the field, sometime previously, from a swamp close by, and heaped out for spreading. It had in this state been exposed to the action of the atmosphere sufficiently long to become very dry and crumbling. The muck was spread over the surface and plowed in, and the field sown to rye and grass-seeds, the rye to be fed off by the stock. I noticed that upon an adjoining field, which had been similarly managed, the grass was very good. In fact, there was more value of forage upon one acre than upon four acres of the first mentioned field. In the old and thickly settled portions of our country, the pastures have been much neglected and worn; the prices they command are comparatively high; the price of pasturage is also high; and hence improvements in this department of farming are as valuable and desirable as in almost any other.

**CULTIVATION OF FORESTS.**—Mr. WEBSTER takes much pains in promoting the growth, and increasing the number and variety of forest-trees. The forests that were growing at the time of his purchase, have been carefully preserved, and a great number and variety of other American forest-trees have been planted by him, many of which are now quite thrifty and sizeable, affording abundant proof of the utility and eventual profit of a careful attention to this branch of good husbandry. The example Mr. WEBSTER has given is most commendable, and any intelligent visitor at Marshfield, witnessing the thrifty growth of these young trees, cannot fail to be impressed with the fact that this matter has been too long and too generally neglected.

**THE STOCK.**—About thirty swine, of all ages, are kept here. They are of the Mackay breed, in all its purity; and are among the best specimens of this favorite breed to be found in New-England. Among others, I particularly noticed his old boar. He is thirteen years old, a fine stock getter, and has been carried into almost every county in the State. An old breeding-sow, with 12 snow-white pigs of very uniform size, also attracted my attention. Mr. Webster is also raising a pair of Suffolk pigs, in order to test the qualities of that breed.

Mr. Webster has imported some fine cattle of the Ayrshire, Devonshire, and Alderney breeds, and is

observing the comparative merits of each. His stock of Ayrshires, of all ages, is quite numerous, and probably they are not excelled by any equal number in the country. He esteems them highly as a dairy-stock for the New-England soil and climate, and his cows of this breed are excellent milkers. Mrs. Webster informed me, however, that the Alderney cow surpassed all others for the rich quality of her milk; that the cream can be churned into butter in a very few minutes, and being of too deep an orange color to look well on the table, the milk of this cow is usually mixed with that of three or four others, perceptibly coloring the whole. She does not give as much milk, however, as either of the Ayrshire cows.

He has a fine young bull of the Alderney breed, and has for experiment coupled him with some of the Ayrshire cows this year. He has an old Devonshire bull and many grade-cattle and steers of his get, which are esteemed highly for the yoke. A promising bull-calf of this breed was also noticed, and a Durham cow of remarkable capacity as a deep milker. The farmer of Marshfield is not to be beaten by any other farmer, in the number and fine majestic appearance of his working oxen, of which he keeps several yoke for the business of the farm. Twenty-five steers were noticed in one lot, which have recently come down from his old farm in New-Hampshire. Mr. WEBSTER has any quantity, and a great variety of poultry and water fowl, and ponds of water for them.

He takes great delight among his cattle; and the progress of each animal is carefully observed and well known by him. Before leaving the farm in the autumn to engage in the duties of public life, he usually has all the cattle brought up to the barns, and each animal put into its stall, which is numbered, and of which a memorandum is taken. His head farmer keeps him informed, during the winter, of the state and progress of the stock and other matters, and if any particular animal is mentioned, he knows all about him at once.

**MANURE.**—In addition to the bountiful supply of manure made by the numerous stock, the sea also affords a large amount of valuable material for the improvement of the soil and crops. The sweepings of the marsh, so called,—which are composed of a variety of vegetation from the marsh and the sea, the most valuable of which is the rock-weed,—are brought in by the tide and deposited in winrows on the margins of the upland. They are gathered up, at different times, and deposited in the barn-yards and piggery. Swamp-muck and mud and turf from the ditches in the marshes, are also carted into the yards during summer, and the whole mixed up with the manure-droppings by the treading of the stock. The hay cut upon the marshes is profusely used for littering the yards and sheds during the foddering season. The barns are not conveniently located for cellars, and the planks of the stable-floors are therefore laid with an opening of three-fourths of an inch, and muck or loam thrown under the stables in the fall to the depth of two or three feet, in order that nothing shall be lost. Large quantities of the menhaden fish are taken in the seine, and either composted with muck and other material, or spread directly upon the land as a top-dressing for grass, or plowed in for hoed crops.

**USE OF KELP.**—But one of the most interesting matters pertaining to Mr. WEBSTER's farming, is the systematic and extensive business of collecting and using kelp. Until he commenced farming, the value of this plant, as a fertilizer of the soil, was not at all appreciated in this region, although thousands of tons of it were annually thrown upon the shore, to be decomposed and again washed away into the ocean. He esti-



mates one load of it to be equal, in the power of production it imparts to the land, to three loads of ordinary farm-yard manure. It gives me pleasure to add, in this place, an extract from a letter just received from J. P. NORTON, Esq., professor of Agricultural Chemistry in Yale College, in answer to some inquiries of mine as to the nature and constituent parts of this seaweed, and it will readily be seen from his description, why this substance is so valuable to the farmers on the sea-coast:

"The name *kelp* does not, as I understand it, apply to any particular kind or class of sea-weeds, but to the ash which is left when they are burned. This ash was formerly made in great quantities, on the northern coast of Scotland, for the purpose of glass making, and sold often under the Spanish name of 'barilla.' Carbonate of soda is now so cheap that the kelp is chiefly applied to the land, and for this purpose brings £3 (about \$15,) per ton. It contains a large proportion of the alkalies, potash and soda, much sulphuric acid, and generally a good proportion of phosphates; also, of course, common salt. It is therefore a very valuable manure. The organic part contains much nitrogen, besides a species of mucilage, and, in some varieties, a kind of sugar. In the Lothians of Scotland, a right of way to the sea-coast to gather sea-weed, increases the rental of a farm, to the extent of five or six dollars per acre."

The particular substance which Mr. WEBSTER calls kelp, is a plant growing in shallow water and rooting upon the stones, the stalk being four to five feet long, with a long and broad leaf. It is a very gummy plant, of a greenish appearance. A strong wind, blowing from the eastward, drives great quantities of it on to the beach, depositing it in large winrows at high water mark. Immediately after one of these blows, all the force of the farm, of men and teams, is set at work in hauling it to the uplands. It is spread directly from the cart, and mostly plowed under the soil, for hoed crops, without any delay. But when taken at intervals inconvenient and unseasonable for turning under for this purpose, it is either spread as a top dressing on the mowings, or used in fertilizing the pastures. Its best effects are realised when plowed in for hoed crops.

It is necessary to secure the kelp very soon after it is deposited on the beach; for if left in a pile, a powerful fermentation commences, and the next high water carries it out beyond reach. There is no particular rule observed as to the quantity used, the ground being covered with as much as can be turned under, by the plow. A short time previous to my visit at Marshfield, there had been one of these heavy easterly winds, and the kelp thrown on shore had been carted to a field of several acres of sward-land, and plowed immediately under the sod. Several teams were engaged in hauling it from the beach, and others in plowing it in; all hands working with all their might, and Mr. WEBSTER as much engaged in the matter as any body. The field is intended for corn next season.

**THE CROPS.**—Mr. WEBSTER goes largely into the cultivation of the various root crops. His potatoes, of the Pinkeye and Mercer varieties, are as fine as I have seen for years. They are very smooth and fair, and have grown to a large size, without any indications of disease. In fact, I was informed that they are not affected with the rot, when planted on his light, loamy soils, and manured with the kelp. It is an admirable dressing for the potato; possessing great power as a fertilizer, without any tendency to produce the fatal disease which is of late years always sure to attack this root when heavily dressed with animal manure.

A field of turneps, of ten or twelve acres, and adjoining it, five or six acres of mangel wurtzel and sugar beets, were noticed. Here again the advantage of

the kelp, as a dressing for these succulent crops, was at once apparent, not only in the luxuriant growth imparted to them, but also in the entire absence of all weeds from the soil; for, unlike manures from farm-stock, the material taken from the sea, brings with it no weeds to the soil, and the labor of cultivation is therefore materially lessened.

The corn crop is good, averaging, I should judge, over 60 bushels per acre. The crop of hay is abundant, the season having been most favorable for grass, and over 200 tons of upland hay have been gathered into the barns. I noticed that a good deal of grass is cut here, called "black grass," which grows on the margins, between the uplands and salt marshes, and is highly esteemed as forage for the stock. I was informed that it does not flourish in any other locality. The marshes yield a heavy burden of hay, and some of it makes very fair winter fodder, but the most of it is profusely used in bedding the stock and littering the yards and sheds during the winter. The barns are full; and an abundance of the requisite materials is at hand, for carrying the numerous stock through the foddering season, in fine condition.

In closing this communication, it gives me pleasure to remark, that the importance and the improvements of agriculture have, from early college days, been a favorite subject with Mr. WEBSTER; and he has ever, both by precept and example, shown that he regards the cultivation of the soil as the highest and most ennobling employment of man.

Hear his own remarks in this connection:—

"Agriculture feeds us; to a great extent it clothes us; without it we could not have manufactures, and we should not have commerce. These all stand together, but they stand together like pillars in a cluster, the largest in the centre, and that largest is agriculture. Let us remember too, that we live in a country of small farms, and freehold tenements; in a country in which men cultivate with their own hands, their own fee simple acres; drawing not only their subsistence, but also their spirit of independence and manly freedom from the ground they plow. They are at once its owners, its cultivators and its defenders. And whatever else may be undervalued, or overlooked, let us never forget that the cultivation of the earth is the most important labor of man. Man may be civilized, in some degree, without great progress in manufactures, and with little commerce with his distant neighbors. But without the cultivation of the earth he is in all countries, a savage. Until he stops from the chase, and fixes himself in some place, and seeks a living from the earth, he is a roaming barbarian. When tillage begins, other arts follow. The farmers, therefore, are the founders of human civilization."

We often hear the clamor of 'book-farming,' 'gentlemen farmers,' &c., &c., raised against the men of wealth, or of gifted mind, who engage in farming, from a natural taste that way, and a desire to promote improvements. It usually proceeds from ignorance or a narrow mind. No man of sense or intelligence ever joins in this clamor; keeping his own operations within the limits of his means, he is readily convinced upon reflection, that to this same class of citizens, agriculture has been largely indebted, in all countries and in all ages. F. HOLBROOK.

Brattleboro,' Vt., Nov. 24, 1848.

**ASHES ON GRASS.**—S. R. Gray, of Salem, N. Y. sowed in the autumn of 1845, 25 bushels of unleached ashes on two acres of meadow, on a western hill-side, which had been mown for thirty years. The crop of hay was increased from half a ton per acre to a ton, and the second year to a ton and a quarter.

## Suggestions for Farmers.

### "To Improve the Soil and the Mind."

THIS was the motto adopted by the lamented BUEL to express the design of our work. Though the words are well chosen, perhaps the object might be more distinctly told by a transposition of them, inasmuch as a proper improvement of the mind of the farmer, seems naturally to constitute an important step towards the improvement of the soil.

By a proper improvement of the mind, we mean, in this case, the acquirement of such knowledge as will better enable the farmer to understand and prosecute the business of his profession—knowledge which shall bear the same relation to his vocation, as that which is possessed by the physician, the merchant, and the mechanic, bears to their pursuits.

The idea, we trust, is not now very extensively held, that little or no intelligence is necessary to direct, rightly, the operations of agriculture; though we fear the supposition is too frequently indulged, that the circumstances in which farmers are placed, are unfavorable to mental energy and the culture of the mind. It is admitted that *severe* bodily labor is prejudicial to the exercise of the mental faculties; but we are confident that the organs of both mind and body are developed and strengthened by a due degree of muscular exercise. Hence the circumstances best calculated to improve the condition of the farmer, are those which call into proper action the intellectual and physical powers with which he is naturally endowed.

But there are now, fortunately, many farmers in our country whose labors are not so constant as to interfere with the improvement of their minds; many, indeed, are *thinking* and *reading* men; and we are forced to conclude that it is more from lack of inclination than the existence of real obstacles, that the class is not more numerous. The long winter evenings and stormy days, afford many hours of leisure, during which a great amount of useful information might be gathered.

To show that manual labor is not incompatible with high mental capacities, it is not necessary to go back to ancient times—when

"the sacred plow employed  
The kings and awful fathers of mankind."

The names of distinguished individuals of our own country may be given as examples of the fact. PICKERING, BUEL, HARRISON and WRIGHT, were accustomed to the practical labors of the field; and if we look, now, into our halls of legislation, either for the different states, or the nation, we shall find, among the sensible, sound-minded, and influential members, a fair representation of *working* farmers.

We have spoken of that kind of knowledge which is to assist the farmer in his business, and the question naturally arises, how can this knowledge be most readily obtained? We answer, by observation, by conversation with, and by reading the writings of each other. But while we would urge the importance of inquiry, we would by no means advise a credulous assent to every story which may be heard or read. The mind of the farmer should be so enlightened that he may be capable of judging for himself, and by a careful discrimination, be able to select what is really useful and *applicable to his peculiar wants*. It is only by observation, by reading, study, comparison and reflection, that this important faculty of discrimination can be acquired.

In recommending to farmers the reading of agricultural books and periodicals, we would not be misunderstood as to what we consider the proper office of such works. They should be regarded as *aids* to ex-

perience and practice. "They furnish hints," says a sensible writer, "which intelligent men may turn to great advantage, by trying them first on a small scale, and altering them to suit their particular circumstances; they inform us of the progress of our art in various districts; they refresh the memory, brighten the intellect, and improve the mind; they are vast stores of *facts*, from which many useful lessons may be learned by the studious farmer."

But though we deem it the first duty of the farmer to make himself acquainted with the business of his profession, we would not restrict his mind to one class of subjects. The pleasures of the imagination, and even the cultivation of a refined taste, are not beyond the sphere of persons in rural life. The favorite bard of Caledonia, who was proud of the appellation of "Ayrshire Plowman," composed many of his best pieces while holding the plow—a favorite employment with him.

JAMES HOGG, the "Ettrick Shepherd," became widely known on account of his poetical effusions, while tending sheep on the Scottish mountains; and his prose writings, penned under similar circumstances, relating to the management of those animals, are among the most valuable we have on that subject.

GILBERT BURNS, a brother of the poet, distinguished as a man of sound sense and extensive information, in a letter to Dr. Currie, respecting the propriety of educating the middling and lower classes, combats with great force the idea that the exercise of the mind is inconsistent with the employment of the hands. He observes—"I can say from my own experience, that there is no sort of farm-labor inconsistent with the most refined and pleasurable state of the mind, that I am acquainted with, thrashing alone excepted." The primitive mode of performing that kind of work, he regarded as "insupportable drudgery;" and he suggested that the man who invented the thrashing machine, deserved a "statue among the benefactors of his country, to be placed in the niche next to the person who introduced the culture of potatoes."

The happiness which may be derived from a contemplation of the beauty and harmony of nature, as evinced in the laws which govern the mineral, vegetable, and animal kingdoms, constitutes one of the strongest incentives to investigation and the pursuit of knowledge; and in this respect, none have greater opportunities than the farmer, who—

"To Nature's voice attends, from month to month  
And day to day, through the revolving year;  
Admiring, sees her in her every shape,  
Feels all her sweet emotions at his breast."

### Order and System in Farming.

The improved condition of Agriculture in the state of New-York, is evident in nearly every county, it is made apparent in the products which flow in abundance to our seaport markets, and it is equally apparent on the whole face of the state. Science has industriously collected the fragments of agricultural knowledge, heretofore scattered over this and other countries, and having arranged them with system, we are enabled readily to retain and to employ them.

With advantages so great, it is surprising to notice the embarrassment and loss, which are permitted to harass and distract a large number of our most industrious farmers, an embarrassment which neutralises their efforts, and holds back from them much of the profit their farms would naturally afford.

It is the absence of *Order* and *System* in their proceedings, to which allusion is made; a palpable want of arrangement of facts, of principles, and of objects, to form a complete whole.

At this season of the year, (November,) we are



forcibly reminded of this truth; the neglected corn, still standing on the field—the rich soil intended for spring crops, resting under a covering of mischievous weeds; the new grown wheat plant suffering already in stagnant waters, for want of proper drains or furrows; the plow and the harrow, resting on a soft and muddy headland, there to remain exposed to the winter storms; the fine woolled sheep hurrying over a long fed pasture, snatching a scanty meal, while an adjoining field exhibits a bountiful supply; abundant hay stacks far from the barns and sheds, around which the sheep cluster in snowy weather, exposed and shivering; such, and such like negligences are, every where too often to be seen, in this our beautiful state—negligences arising from a want of *system* and *order*, and for which an easy remedy exists, when the suffering party can be convinced, that he not only loses a portion of the moneyed benefit he seeks for, but also loses in the estimation of his fellow-citizens, who view with silent regret the slovenly aspect of his farm, the want of *order*, and the loss of natural advantages for want of *system*.

It was Burke who said, that "good order is the foundation of all good things," and as farmers we may be assured, that a want of *order* in our farming operations, and a want of *system* in our course of cultivation, must and will display a confused mind,—a mind without a steady object, relying on chance, dependent on accident, causing a loss of many "good things."

The season is now at hand when all our out-door operations cease; in fact, the systematic farmer has closed his field labor for this year, except perhaps ditching, or the removal of stumps and stones. Now is the season to reflect, and establish a *system* for the coming year, and by a judicious arrangement of crops and field work, have or cause each to follow in an order, admitting of no hurry or anxiety for its due and thorough accomplishment; this, generally may and can be done, and the man who omits it cannot run an equal race with his better informed and careful neighbor.

No excuse or apology can be found for the want of order; it does not require talent or skill, neither does it consume time; while its exercise causes every thing within its influence to be ready for action, agreeable to the eye, enduring in existence, and fitted to produce the required results without failure.

Neither can any man be excused for a want of system, no, no more than ignorance can be tolerated in this state, where such abundant sources of knowledge are freely proffered. 'Tis true, that *system* requires effort of mind, and so does every vocation whereto man is called, if he would perform his whole duty. None on this earth have more need for the exercise of mind than we who cultivate the soil; every department of science is embraced in a proper fulfilment of our duties, and so wide-spread and essential are the claims upon our minds, that without system no man should enter upon a farmer's life; without system he cannot succeed; he may draw out a toilsome existence, but he cannot accumulate wealth and be truly prosperous, independent and happy, unless *SYSTEM* guides every project, and *ORDER* presides over every department of his farm.

AGRICOLA. Seneca Co., N. Y., Nov., 1848.

#### Agriculture and the Agriculturist.

I remember to have seen it asserted something to this effect, by the late John Quincy Adams, that "if there was one business, profession, or calling, that was more independent than another—one that could be strictly called more noble—it was agriculture." And this was doubtless true. Agriculture is the great centre around which all the other occupations of society revolve. Trade, commerce, manufactures—even the learned professions, owe their welfare to agricul-

ture. Look at it from any point of view we may, the farmer, simple homespun name as that has become, wields a tremendous influence over society. Little does that man who is quietly cultivating his potato patch, or hoeing his corn-field, think of the importance of his calling. He is a part of a great whole that, to do without, would be to bring dearth and famine upon the land. Such is agriculture; and yet we often hear men complaining of it as a dull, monotonous occupation—that it is destitute of the excitement and profits of trade—that farms, as a general thing, do not pay more than four per cent. interest—that it is a life of almost unremitted physical exertion. To examine partially into these objections urged against agriculture, is the object of the present article. That some, or all of them, may, at first sight, appear true, is very possible; but I am very well convinced that a few moments' reflection will set matters in their true light.

Is farming a dull, monotonous occupation? I answer, no. To him whose only ambition is to become a good plowman, or to learn to do any of the merely mechanical parts of agriculture, in order to gain his daily bread—to him who has never said to himself, "I wish to improve my mind as well as my soil," agriculture may indeed be dull. But to that man who has entered upon it with nobler and loftier views—who, finding himself in the great laboratory of nature, sets himself at work with hand and mind to explore the hidden depths of earth—to him who unites scientific research to practical experience—who with a master mind turns everything upon his farm to good account—to him who is not weary in well-doing, but through difficulties and trials presses onward—to such a man, I say, agriculture offers a noble field for the exercise of mind. While he holds the plow with his hands, his head is at work; he thinks—he plans—the hours fly swiftly away, for his mind is working as well as his body.

Is agriculture destitute of the excitement and profits of trade? Many will answer yes—but for my own part, I can find excitement enough in agriculture for my taste. In the changing seasons—in the calms and the storms—in the drouth and the deluge—in the influence of weather on crops—there is enough for the exercise of hope and fear. As to profit, when we consider that it has been pretty clearly ascertained that out of every hundred persons engaged in business, more than eighty fail during a period of fifteen or twenty years, I feel warranted in saying that in the end, considering the amount of capital invested, the profits of agriculture are at least equal to those of mercantile pursuits.

Do farms generally only pay four per cent. interest? If so, how is it that so many men buy a farm, pay down one-third or one-half—leave the remainder on bond and mortgage, at six or seven per cent.—pay their interest—support a family, consisting of a wife and three or four children—keep their farms and buildings in good repair, and eventually pay off the whole amount due. This is not an uncommon case. Many have a very loose way of calculating what a farm produces. They *live* from their farms, taking no account of what they get from it for family use, and only considering what they sell as what their farms have produced.

Let a man with a small family have four thousand dollars invested in a farm; could he not live better upon that sum thus invested, than he could with the same amount invested at seven per cent. interest? No one can hesitate in an answer to this question.

As to the hard work of agriculture—I glory in it. In these days, when men are turning and twisting and using every subterfuge to escape from labor, and live by their wits, I welcome that calling that brings man

to acknowledge the great law of God and of nature—that of labor. Excessive labor, whether physical or mental, is injurious; but rational labor is a blessing, and not a curse. That some men do not labor enough, and that others labor too much, is the fault of a corrupt state of society, not of their calling or occupation.

There is one thing against which I would caution my fellow farmers, and especially, my fellow *practical* farmers, and that is, never to suffer their minds to run wild while they are bestowing such care on their farms. Depend upon it, science and agriculture must go hand in hand. Science will aid you much, and save you from much of that unremitting physical exertion of which you sometimes complain. Free yourselves from those prejudices against book-farming which many of you have read, and ponder well what you read, and it will not be long before your calling, which has been too much neglected from your own indifference, will rise to its true height. H. C. W. Putnam Valley, N. Y., Nov. 30, 1848.

## The Veterinary Department.

### Ticks on Sheep.

Ticks are a great annoyance to sheep. The itching they produce causes the sheep to rub themselves against fences and other objects, and to scratch and bite themselves with their teeth, in doing which they pull out their wool, and mat and injure that which is left on the body. The best course to prevent the increase of ticks, is to wash the lambs in a decoction of tobacco, three or four days after the sheep have been shorn. The ticks, being deprived of protection on the sheep, resort to the lambs, where they find sufficient covering in the young wool.

But if, from the want of proper precautions, the flock is found affected with these vermin in winter, or while the wool is long, the best mode of destroying them is by fumigation. Take a canister, of copper or sheet-iron, made at one end to fit the pipe of a bellows, and having at the other end a small pipe for the escape of the smoke. Fill the canister with tobacco, put in a coal of fire, and fasten the canister to the bellows-pipe, around which there should be some damp tow to make it fit tight. The wool should be opened in lines or furrows around the body, from six to eight inches apart. As the wool is opened the pipe or canister should be applied close to the skin, the wool immediately closed around, and slightly compressed at the surface with the hands, and at the same time a puff given with the bellows. This will keep the smoke close to the body. The work may be done very expeditiously, and with due attention, nearly every tick will be killed.

### Hoof-ail in Cattle.

This disease, sometimes called "foul in the foot," is most common in open winters, or when cattle are obliged to travel or stand much in mud. It is known by lameness, soreness between the claws of the foot, with inflammation, and in advanced stages, discharge of fetid matter, which issues from between the hoof and the foot. A separation of the hoof after a while takes place, and if the disease is not checked the hoof sometimes comes off. Though the disease, like foot-rot in sheep, is believed sometimes to originate spontaneously, there is good reason to believe that it is contagious; and on this account, an animal, as soon as it is affected, should be kept by itself. The best remedy, if used when the disease first manifests itself, is blue vitriol, or sulphate of copper. First wash the foot in

strong soap-suds, and then apply the solution of vitriol to the affected part, twice a day. If the disease is of long standing, the hoof should be pared away from the upper edge, the offensive matter taken out as thoroughly as possible, and an ointment of corrosive sublimate and lard applied. The animal should be kept from wet, and if the foot is much sore, it should be protected by a bandage of strong cloth.

### Diseases of Swine.

**ITCH OR MANGE.**—Swine often suffer greatly from this disease. In its worst stages, the skin becomes almost an entire sore, and the animal is distressingly irritated by the inveterate itching. It constantly rubs itself, becomes poor, and if not relieved, dies. An ointment of lard and sulphur, if thoroughly applied all over the body, and rubbed in, will generally cure the complaint. It is well to give sulphur with the food also.

**QUINCY OR SORE-THROAT.**—Cole, in the "Veterinarian," directs to give for this disease,—“Half a pint of molasses, a table-spoonful of each of hog’s lard and sulphur, and a tea-spoonful of cayenne or black pepper. Melt, and mix all together, and when just cool enough, pour down the throat, unless you can make him eat it in light food.”

### Diseases of the Horse.

**BROKEN WIND** is a disease with which horses are affected. The air-cells of the lungs become ruptured, from various causes, and respiration is labored and irregular. “The cure of a broken-winded horse,” says Youatt, “no one ever witnessed, yet much may be done by way of palliation. The food of the animal should consist of much nutriment condensed into a small compass; the quantity of oats should be increased and that of hay diminished; the bowels should be gently relaxed by the frequent use of mashes; the water should be given sparingly through the day, although at night the thirst of the animal should be fully satisfied; and exercise should never be taken when the stomach is full. It will scarcely be believed how much relief these simple measures will afford the broken-winded horse, and of how much exertion he may be gradually rendered capable. Carrots are very useful to the broken-winded horse, not only as containing much nutriment and considerable moisture, so that less water may be required, but from some property they possess rendering them useful in every chest affection. A broken-winded horse turned out to grass, will never improve, on account of the almost constant distention of the stomach.”

**NEUROTOMY.**—S. A. Barker, of McConnellsville, Ohio, says that “the operation of Neurotomy, as described in Skinner’s Youatt, has in every instance, in this part of the country, proved fatal. Thousands of dollars worth of horses, operated on, have been lost.” (The operation consists in cutting certain nerves from the foot of lame horses, and though producing at the time apparent relief, results ultimately in the destruction of the foot.) S. A. B. states, “in June, the hoofs of some of the horses operated on, literally rotted off, while the animal, insensible to pain, continued to stamp the lacerated and denuded stumps on the ground, to drive away the flies, which bit it above the point operated on.”

**STRAINED SHOULDERS IN HORSES.**—The following is a good embrocation for strains: Spirits of turpentine, half a pint; oil of origanum, half an ounce; olive oil, a pint and a half; cantharides, one ounce. Mix together; keep it in a bottle; shake it often; apply it to the affected part, and rub it in, morning and night.



## Different Species of the Ox.

### Aurochs, or European Bison.

OF animals belonging to the genus *bos*, or ox, several distinct species exist; other species have passed away and are only known from history or their remains, which are found in various parts of the world. Of the latter class may be mentioned the *urus*, a huge animal which once inhabited the wilds of Europe, and was described as little less in size than the elephant, with immense horns, and of untamable ferocity. This race has been extinct for many centuries. But another species which existed contemporaneously with the *urus*, called the *bison* or *bonassus*, is believed to be identical with the Lithuanian wild ox, *aurochs* or *zubr*, represented by figure 1. A similar species, or perhaps the same, exists in the Caucasian mountains.

The idea that the ancient *urus* was the parent of our domestic ox, is now rejected by all naturalists; as is, also the equally untenable theory that the domestic stock is descended from the bison or aurochs. They have



1.—AUROCHS, OR EUROPEAN BISON.

wide anatomical differences. The common ox has 13 pair of ribs, the aurochs 14 pair; the lumbar vertebræ of the common ox are 6 in number, those of the aurochs are 5; the front of the common ox is flattened, that of the aurochs is protuberant, and broader in the proportion of three to one; the occipital space between the horns forms an arch, instead of being flat.

The following description of the aurochs is taken from a Treatise on the Ox, by W. C. L. MARTIN:—"The European bison, once so widely spread, is now confined to the forests of Bialowicza (pronounced Bealawezha) in Lithuania, where it is protected by stringent laws: whoever kills one, without permission of the Russian government, has to pay a fine of 2,000 rubles; or, if unable to meet the penalty, must suffer transportation to Siberia. Formerly the penalty was death.

"This species is wonderfully massive and robust in its proportions; its withers are thick, and elevated, and covered, as are the neck, sides of the head, and lower jaw, and throat, with long, rough hair, forming a sort of mane beneath the throat, like a beard. This mane is often a foot in length, and is thickest during the winter, especially in old bulls; the hair covering the trunk and limbs is soft and woolly; the tail, which is short, is furnished with a tuft of stiff hairs at its extremity; the eyes are small, but their expression is extremely wild and savage, and when the animal is irritated they glare with fury; the tongue, lips, and palate, are blue. An odour, described as between musk and violets, is exhaled from the skin, and especially that portion which covers the convexity of the forehead. This odour is much stronger in the male than the female, and may be perceived at a considerable distance from the herd. The horns are large, round, and lateral, with the points sweeping upwards

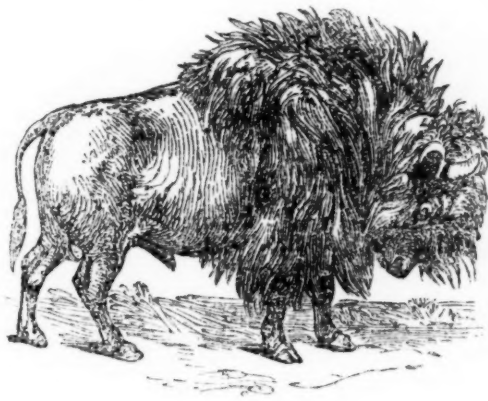
and forwards; the head is large and heavy, and carried low. The male aurochs is upwards of six feet in height at the shoulders, and is a most formidable animal; so great is its strength that, according to Dr. Weissenborn, trees of five or six inches in diameter are levelled by the thrusts of a bull. He fears neither the wolf nor the bear, but assails them with horns and hoofs; an old bull is a match for four wolves; and although a pack of wolves may sometimes hunt down a strayed aurochs, the collected herd has nothing to fear from any animal."

It is said that all attempts to obtain a mixed breed between the aurochs and domestic cattle have utterly failed. A great antipathy exists between them; the aurochs shuns the domestic race, and if contact is unavoidable, attacks them with fury and gores them to death.

### American Bison, or Buffalo,

Closely allied to the aurochs or *zubr*, but evidently of a distinct species, is the American bison, *bos Americanus*, (fig. 2.) This animal formerly existed as far to the eastward as New-York and Pennsylvania; but at the present time, it is not found east of the Mississippi river, and its common haunts are to the westward to the base of the rocky mountains. Here they are sometimes seen in herds of twenty thousand. The race is, however rapidly decreasing in numbers, from the indiscriminate slaughter which has for a long time been carried on against them by the hunters, who kill them in vast numbers chiefly for their hides, which form the well-known "buffalo robes" of commerce.

Anatomically considered, the American bison differs more from the common ox than does the European aurochs. The ribs consist of fourteen pair, and the lumbar vertebræ are only four in number. Still, there have been repeated instances of its breeding with the domestic race; but the offspring, so far as we can learn, are invariably barren. Owing to the great



2.—AMERICAN BISON, OR BUFFALO.

breadth of forehead and the hump on the shoulders, the common cow, when impregnated by the bison bull, experiences great difficulty in parturition; but the bison cow readily conceives by the common bull, and brings forth without difficulty. We are not aware that the hybrid stock possesses any superiority over the domestic race.

### The Musk Ox.

Another species of ox indigenous to North America, is the Musk ox, *ovibos moschatus*. Its habitation is from the 61st to the 75th degree of latitude. It inhabits wild and bleak situations, feeding in winter chiefly on lichens, and in summer on grass. It is not larger in size than the smallest of our domestic breeds. Its flesh, though eaten by hunters and by the Esquimaux, is strongly imbued with musk. It is covered with long woolly hair, which reaches from its sides almost to the ground. The general color is a dark grizzled brown.

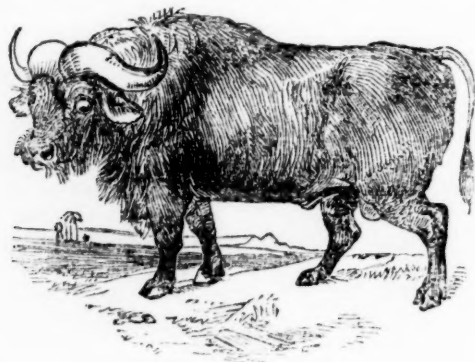
## African Buffalo.

Mr. MARTIN, in the work above referred to, gives the following account of the African or Cape buffalo—*bos caffer*, (fig. 4.) "It is a native of the wilds of Southern Africa, where, associated in herds, it frequents the borders of woods and thickets, and the watered ravines and glens among the hilly grounds. This savage beast is fond of wallowing in pools and swamps, and in the muddy ooze, covering its almost naked but dense



3—MUSK OX.

hide, with defensive clothing against the attacks of insects. The horns of this species form at their base a solid rugged mass, covering the forehead, from which they bend downwards, and somewhat outwards, gradually diminishing to the points, which suddenly curve upward. The distance between the points of the horns is frequently five feet, but the rugose massive base of each is in contact, forming an impenetrable helmet: their color is black. With these formidable weapons the Cape buffalo has been known to transfix a horse instantaneously, lift him up, and hurl him with crushing violence to the ground. The eye of this animal is savage



4—AFRICAN BUFFALO

and lowering, and betokens great ferocity; the ears are large and generally observed to be torn, either from combats among the animals themselves, or from the laceration of spines and thorns, as they force their way through the dense thickets.

"The Cape buffalo does not exceed the ordinary ox in height, but is much more massively and heavily built, and is a far more ponderous animal, with short thick limbs, and a dense hide nearly destitute of hair; on the lips and throat, however, the hairs are long, rather thickly set, and very coarse.

"Among the natural enemies of the larger quadrupeds, the lion is the only adversary which this beast has to fear; but even the monarch of the desert does not always prove victorious, and instances have occurred in which several buffaloes have united in the rescue of an attacked companion, and gored the foe to death."

In future numbers we shall give further descriptions and illustrations of the different species of the ox tribe, and shall notice various domestic stocks and breeds.

## Notices of New Publications.

TRANSACTIONS OF THE AMERICAN INSTITUTE, FOR 1847.—We have received the volume above mentioned, which numbers over eight hundred pages. The matter was chiefly prepared under the supervision of the late secretary of the Institute, T. B. WAKEMAN, Esq. In addition to the usual doings of the Association, the book contains several communications of value from persons in different parts of the country.

MR. COLMAN'S EUROPEAN AGRICULTURE.—Parts nine and ten, which bring this work to a close, have been received. They comprise views of French, Belgian, Dutch, Flemish, and Swiss agriculture; with notices of various agricultural schools, experimental farms, and copious remarks on agricultural education. Most of the subjects are necessarily treated with brevity, owing to the small space in which they are condensed, but a great amount of information, of a practical nature, is given, in a style particularly interesting and attractive. We shall notice the work more fully next month.

SCIENTIFIC AGRICULTURE, or the Elements of Chemistry, Geology, Botany and Meteorology, applied to Practical Agriculture. By M. M. RODGERS, M. D. E. Darrow, Rochester, publisher.—This is a book of respectable appearance, embracing 275 pages. It is evidently designed to furnish the rudiments or first principles of the sciences mentioned in the title. It embodies a large amount of useful information on the various subjects brought under consideration. The arrangement appears simple, and though each subject is, necessarily, treated with brevity, the language is generally plain and within the comprehension of common minds. But as the use of technical terms cannot be entirely avoided in a treatise of this kind, a glossary is appended, which affords a ready explanation of any words not likely to be familiar to the general reader. We have not examined the work sufficiently to pronounce in regard to all its details, but are favorably impressed with its general character.

HOLDEN'S DOLLAR MAGAZINE.—See advertisement of this magazine, page 39 of this number. We have never seen the work, but it is highly commended by the press generally.

BRITISH AND FOREIGN MEDICO-CHIRURGICAL REVIEW, or Quarterly Journal of Practical Medicine and Surgery.—This ably conducted periodical ought to be in the hands of every member of the faculty in the country. It contains, also, much that is interesting and valuable to persons not immediately connected with medicine or surgery. With no pretensions to knowledge in the healing art, we can say we have derived great benefit from a perusal of this work, and we should be very unwilling to be debarred from it. It is issued quarterly in London, and re-published in New-York by RICHARD & GEORGE S. WOOD, 261 Pearl-street. Price, \$3 per annum. A quarterly retrospect of American practical medicine and surgery, compiled from all the American journals, is issued as a supplement to the *Review*, and is sent *gratis* to all subscribers who pay promptly in advance.

AMERICAN PLOWS.—A writer in the (English) *Mark Lane Express*, who had made a thorough trial, side by side, of both English and American, says: "In justice to the American plows, I must say that they cut and turned their furrow quite as well as the others, at the same time breaking the land to pieces, and making a capital preparation for either drilling or dibbling; indeed, they are the most simple, light, strong, and efficient plows, that it is possible to conceive."



## The Indian Corn Plant—*Zea mays*.

### Varieties of Indian Corn.

MAIZE or Indian Corn, is undoubtedly an American plant, though we have no positive knowledge in regard to its original habitat. We are not aware that it has ever been found growing in a wild state; but as its spontaneous production could only take place in a region not subject to frost, it has been reasonably conjectured that it is a native of the tropics. What changes the plant has undergone by cultivation, it is impossible to determine. It was found nearly in its present condition, in the possession of many of the Indian tribes, at the earliest period of their acquaintance with Europeans, and according to their traditions had been cultivated by them for ages.

As its range of cultivation embraced the torrid and temperate zones, the character and habits of the plant presented considerable variety, as is seen at the present day. Each section had the kinds which seemed adapted to the soil and climate. The varieties of the south required more time to mature, had a large, tall stalk, with ears of proportionate size, the grains large, but flat, indented on the top, and in many instances of light weight in proportion to the bulk; those of the north matured in less time, had a short and small stalk, small ear, the grains small, round, flinty and heavy. Intermediate sections had kinds of medium character.

An enumeration of the varieties now cultivated is impracticable—they are very numerous; some were derived from the Indians, and, as we can trace them no farther, may be called original; many have been formed artificially, by mixture, and by selection, and in these ways they are constantly increasing. Dr. P. A. BROWN, of Chester county, Pa., in an essay written in 1837, states that he had collected forty-two varieties. Taking those named by him, it would be easy to swell the list, by the addition of others already known, to sixty or more.

Of kinds believed to have been obtained from the Indians, we may mention the Sweet corn, the King Philip corn, the Golden Sioux, and Tuscarora.

The sweet corn was known by the Indians as a distinct sort, and is remarkable for the peculiar shriveled appearance of its grains, their softness and sweetness. But few attempts, probably, have been made to change this kind, and it presents, comparatively, but little variation in its characters. It readily mixes with other kinds, when they are planted contiguously and are in blossom at the same time.

The King Philip corn is a rather small, yellow eight-rowed variety, which has been cultivated in the eastern part of Massachusetts, and in Rhode Island.

The Golden Sioux, or Early Golden Sioux, is a medium-sized, yellow kind, with from twelve to eighteen rows, obtained from the Sioux tribe of Indians. The celebrated *Dutton* corn, which was so highly recommended a few years since, is believed to be only a modification of the Golden Sioux. They are the same in all essential characters.

The history of the *Dutton* is as follows. In *The Cultivator* for April, 1838, Judge BUEL states that this kind of corn was obtained about sixteen years previous, "from the Green Mountains of Vermont." A communication from DAN. CHIPMAN, of Ripton, Vt., in the *Cultivator* for June, of the year before mentioned, states, "Not far from thirty years since, Salmon Dutton, Esq., a respectable farmer of Cavendish, in this state, procured a new variety of corn. Having raised a crop of it, and finding that it had a very large growth, and that it was, at the same time, earlier than the corn then generally raised in this state, and believing that the farming interest would be greatly promoted by

raising it, in October, of the same year, he transported a quantity of it in the ear, to the place where our Legislature was in session, and distributed it among the members and others. It was thus distributed through the state, and took the name of the *Dutton* corn. I took an ear of it and planted it the next season; the stalks grew seven or eight feet high, and were large in proportion to their height. The ears were longer and much larger than any I had before seen, having from twelve to eighteen rows on an ear. The cob was very large and the grains very small, and not so flat as those of other corn; and many of the ears instead of coming to the point at the top end, were flattened and perfectly covered with very small grains. I raised the corn for several years, and found it somewhat earlier than the corn then common in this part of the country. I never ascertained which yielded the most corn by the acre, but considered there was very little difference. The *Dutton* produced at least a third more corn fodder than the other; and yet, after having raised it five or six years, I threw it by, finding it very difficult to prevent its moulding on the cob, by reason of its great size."

Mr. CHIPMAN states that a kind of corn called the Rocky Mountain corn, was brought into his neighborhood, several years after that above described had been introduced. He says it perfectly resembled the *Dutton* in every thing but its size, which was smaller and the growth more dwarfish.

The Tuscarora corn is an early, dwarfish variety. The ears are short, with eight rows, the grains of a dull white color, rather large, and of a soft and starch-like consistence, hence remaining longer in a state fit for boiling than more flinty kinds. We have seen a kind called Tuscarora, but which we did not regard as true, that was larger and later than this.

The other most distinct varieties in this vicinity are the following: Early white flint, or Canada white flint; an eight-rowed kind, rather small stalk and ear, very early, and perhaps more prolific than any other kind of equal earliness.

Long-eared white flint; ears eight-rowed, sometimes twelve to fourteen inches in length; the cob small; grains round and flinty; of medium earliness; adapted to good lands, and on such, very productive.

Long-eared yellow; resembling the above in all respects but color. This kind is cultivated in the Connecticut valley; we have seen fine samples of it at agricultural exhibitions at Hartford and Springfield.

A yellow, twelve-rowed kind, sometimes called twelve-rowed Canada. Introduced here from the farm of S. W. JEWETT, of Vermont. It is an early and excellent kind.

CHARACTERS OF VARIETIES FOR THE NORTH.—The characters of a good variety of Indian corn for the northern states, are—1. A habit of quick growth. In this section, the seasons, at best, are but just long enough to mature this plant; hence the first point is the ripening of the crop, for if it fails in this particular, the labor of cultivation is lost.

2. A stalk of medium size and strong growth. Some kinds are naturally weak—are more liable than others to be injured by winds or by the attacks of insects, and require more attention to prevent their being overpowered by weeds.

3. A long ear, of uniform size from one end to the other, the cob comparatively small, the grains plump, deep, and so closely set as to entirely cover the cob, even to the top, without any vacancy. Some kinds have very large but-ends, and large, hard knobs at the butt of the ear. It is a great defect, causing the retention of moisture, and rendering the corn liable to injury by moulding in the crib, or while standing in the shock, and also by being frozen while wet, which destroys its germinating power.

4. Ears set on the stalk at a moderate height, and on short stems or branches. A variety that ears high, is likely to be proportionately more productive of stalk than grain. Some kinds ear so low that the grain is liable to be damaged by coming in contact with the ground—as the ears hang down, more or less, when nearly ripe. If the stems are short, the ears are less likely to be injured in this way. If the ears set too low, it is more difficult to cure the corn in shock, both on account of its being affected by the dampness of the ground, and by packing so closely as to keep out the air.

5. A thin husk. There is much difference in varieties in this respect. Those which have a light thin husk, ripen much faster, and can be husked much more rapidly, than those which have a thick covering.

An observance of these principles may lead to the adoption of the best varieties. It must be remembered, however, that to perfect a variety, and continue it without degeneracy, the strictest care is required from year to year. The seed corn should be selected *in the field*, as soon as it is sufficiently hard, and regard should be had to *every point* which it is desired the variety should possess.

**PARCHING OR "POP" CORN.**—In the neighborhoods of cities, the selling of parched corn is carried on to a considerable extent. The best kinds for this purpose are the Rice corn, and a variety sometimes (though improperly) called Egyptian corn.

The Rice corn is a dwarfish variety, bearing from three to four ears on a stalk; the ears seldom over four inches in length, with from eight to twelve rows; the grains of a similar color and shape to rice; very flinty; and when cooked, either by being boiled while unripe, or parched after having become hard, of a rich and excellent taste. Of medium earliness, or rather late. Origin unknown.

The so-called Egyptian variety is larger than the above; stalks six to eight feet high; two to four ears on a stalk; ears five to seven inches long, generally with eight rows; the grains small, of roundish form, and of a dark blue or black color. Of medium earliness. We know nothing in regard to its origin, and can give no reason for its being called Egyptian. It is evident that this variety has no special affinity with a kind of *millet* which has been cultivated in this country, under the name of Egyptian corn.

Neither of the last-named kinds are very productive; but it may be an object to cultivate them in particular districts, on account of the high price they command from the dealers in parched corn.

## The Poultry Yard.

### Origin of the Domestic Fowl.

It is impossible to trace remotely, the history of the common fowl. It was kept in a state of domestication by the ancient Greeks and Romans; but as is observed by MARTIN, in his late Treatise on Poultry, in *Knights Farmer's Library*,—"The circumstances attending their primeval subjugation are utterly buried in oblivion. The same obscurity that hangs over the early history of our domestic quadrupeds, hangs over that of our domestic birds, nor can we hope ever to dissipate it."

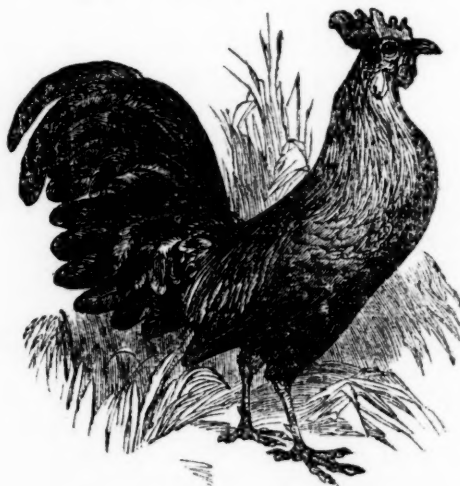
The only part of the world in which the fowl is still found in a wild state, is Southern India and the islands of that region. Nor have we any account of its ever having been met with elsewhere, in a state of nature. Hence it is reasonably concluded that the bird is of Indian origin. The author above mentioned informs us that at least four wild species are found in India, Malaya, Sumatra and Java; viz., 1. The Great Malay, Cochin-Chinese, or Kulm Fowl—(*Gallus giganteus*, of

Temminck;) 2. The Javanese Jungle-Fowl—(*Gallus bankiva*, Temm.); 3. Sonnerat's Jungle-Fowl—(*Coq sauvage*, of Sonnerat, *Gallus soneratti*, Temm.); 4. Stanley's Jungle-Fowl—(*Gallus stanleyii*, of Gray.)

The first of these is undoubtedly the parent of our domestic stock, known under the names of Malay, Java, Cochin-Chinese, &c.

The Javanese, or Bankiva Jungle Fowl, fig. 12, is thus described by MARTIN:—

"This beautiful bird is found wild in Java, and is about equal in size to an ordinary Bantam—the black-breasted red varieties of which, with a dark steel-blue band across the wings, it closely resembles. The space round the eyes and the throat are bare, the comb is much developed and deeply serrated along the upper



12—JAVANESE JUNGLE FOWL.

ridge, the wattles are rather large. Long, clear, brilliant, golden orange hackles cover the neck and rump. The upper part of the back, over which the hackles of the neck are continued, is bluish black. The middle and lesser wing coverts are of a rich deep chestnut, with the webs of the feathers disunited; greater coverts, steel-blue; secondaries also steel-blue, with a border of chestnut. The quills are brownish-black, edged with pale reddish-yellow. Tail black, glossed with changeable green and blue. Breast and under parts black. Contour very graceful, and every action animated and lively.

"It would appear that an allied but distinct species exists on the continent of India, distinguished chiefly by its larger size. Of this continental species, Sir W. Jardine states that he has seen three or four specimens, all of which came from India proper. From this perhaps, may be deduced the black-breasted red variety of our spirited game fowls.

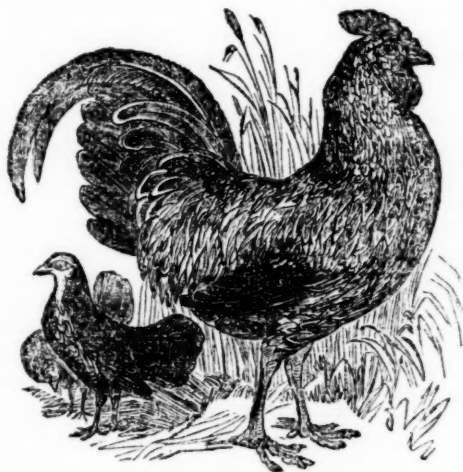
"With regard to the Bankiva jungle-fowl, it cannot be doubted that it is the main source, if not the only one, of our Bantam breeds. The very term *Bantam* is sufficient to establish the fact. Bantam is the name of a town and district in the north-west of Java, belonging at present to the Dutch. The town is now fallen into decay, but was formerly a place of great importance, and still boasts of a governor, whose residence is at Sirang, or Ceram, a thriving town some miles inland. The Portuguese, who visited Java in 1511, carried on a great trade from Bantam with Hindustan and China, chiefly in pepper. In 1595 the Dutch established themselves at Bantam, and in 1602 the English erected a factory in the same place, which was the first possession of the English in the East Indies. Of the subsequent predominance of the power of the Dutch, who built the town of Batavia, not far distant from Bantam, this is not the place to speak. From this statement, however, it is evident that the beautiful Bankiva jungle-fowls, reclaimed by



the natives, and sold to the British at Bantam, while their factory was established there, were imported into England under the very natural appellation of Bantam fowls. Their elegance and diminutive size rendered them favorites, and in due time the name, belonging exclusively to these birds, came to be conferred on all small or dwarf fowls indiscriminately, whether of this pure breed or otherwise. The domestic Bantam stock, as every one knows, breeds freely with ordinary fowls, the mixed offspring being intermediate in size between their parents; and that the Bankiva jungle-fowl will breed with our domestic Bantam race, and with other races, the offspring being fertile, we ourselves can testify. Such birds are common in the gardens of the Zoological Society, and so closely do the offspring of the Bankiva jungle-cock and a brown domestic Bantam hen resemble the wild or original breed, that on more than one occasion we have been in doubt; nor is this to be wondered at—on both sides was the lineage the same."

The male of Sonnerat's Jungle Fowl is described as follows:—

"Size intermediate between that of a Bantam and a game cock; but the general contour is peculiarly light and graceful, and vigour and alertness are displayed in every action. The comb is large, with a sub-seriated ridge, that is the ridge is but slightly dentated, in comparison with the comb of the *Gallus bankiva*.



13 - SONNERAT'S JUNGLE FOWL.

The wattles are large and double. The hackles of the neck, the wing coverts on the shoulders, and the tail coverts are dark grayish, with bright golden orange shafts, dilating in the centre and towards the tip into a flat, horny, and very glossy plate. In some of these feathers the shaft takes an elliptical or oar-like shape, in others it puts on the appearance of a long inverted cone, from the centre of the base of which a battledore-like process arises."

"The feathers of the middle of the back, breast belly and thighs, are of a deep rich gray, with paler shafts and edges. The tail is of a deep, rich refulgent green, but the feathers which immediately succeed the hackles of the lower part of the back, and lie against the sides of the tail, are rich purple with a pale yellow edge, those next in succession are a golden green with gray edges, and all are glossed with brilliant metallic reflections. Bill, legs, and toes, yellowish. When seen in a bright sunlight, the plumage of this elegant bird glitters like gold, and presents a most rich appearance. The female is generally described as destitute of those expanded ornaments to the hackles and wing-coverts, which are so conspicuous in the male; and certainly we have not observed them on the specimens which we have seen.

"Sonnerat's jungle-fowl, the jungle-cock of the Bri-

tish, is noted for its prowess and resolution, inasmuch that it is anxiously sought after by the cock-fighters in Hindustan, who rely on it for victory when pitted against larger game cocks. It does not appear however that the cock-fighters breed this bird in its purity; they seek after the wild birds, which soon become tame. Johnson in his *Sketches of the Field Sports as followed by the Natives of India*, informs us that the Sheccaries, a people of low caste in India, gain a livelihood by catching those jungle-fowls, and also other animals.

"In general habits and manners the jungle-fowl resemble their domestic relatives; the cock proudly leads his train of females, and vigilantly watches over their safety. On being suddenly disturbed the troop scatters in all directions, seeking safety under covert of the dense brushwood. In spots where they are numerous, the challenging of the cocks to each other may be heard on every side around, and yet such is their cunning and keenness of sight, that the sportsman, unless he is well acquainted with their habits, is often disappointed in his attempts to get a fair shot.

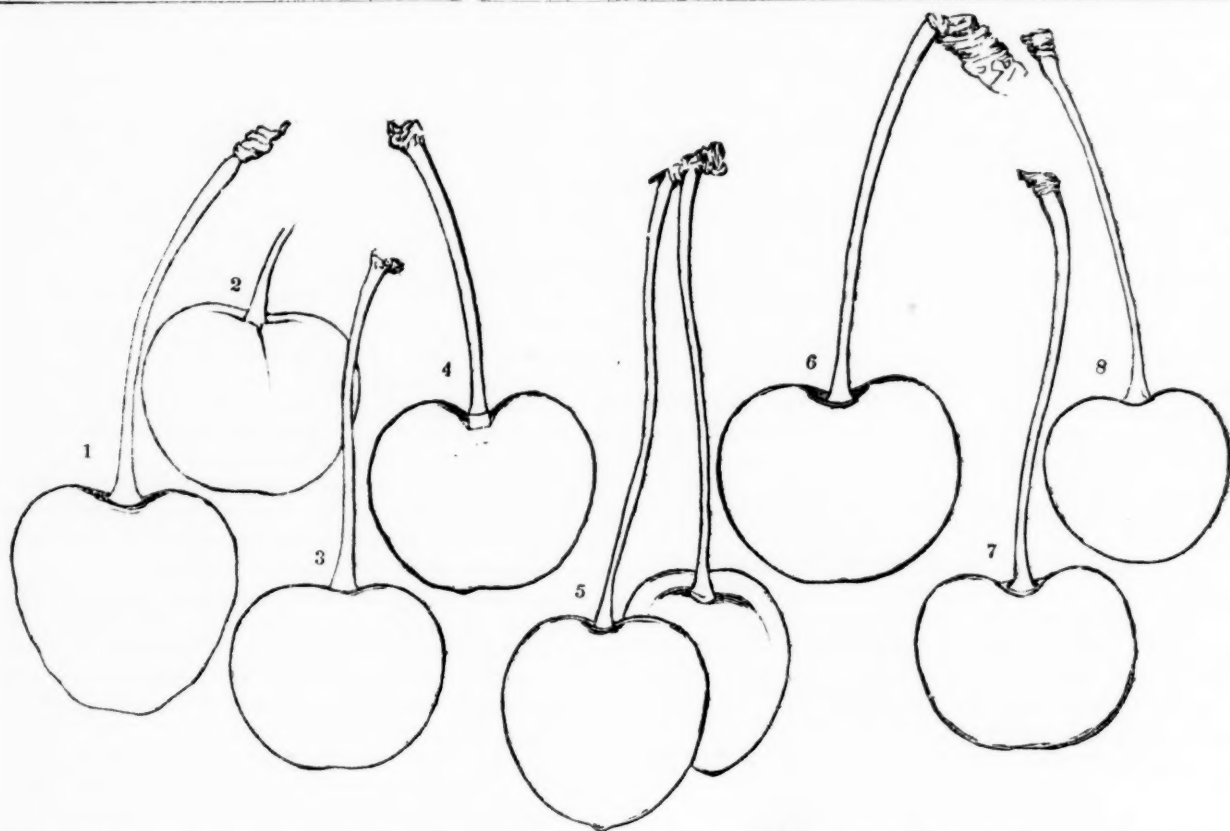
"Sonnerat and many other naturalists have contended that to this species alone are our breeds of domestic fowls to be traced. We think it most probable, notwithstanding the peculiarity of the plumage, and the circumstance of the throat of the female being covered with feathers, instead of being naked and wattled, that the *Gallus sonneratii* has intermingled with other breeds, or contributed to improve them—and among them we would enumerate the breeds of high-spirited game fowls kept for fighting by the Mussulmans of India, and which have been long celebrated; but we cannot admit that Sonnerat's jungle fowl is the sole origin of the domestic race. The *Gallus bankiva* and the *Gallus giganteus* present stronger claims to our notice, nor can we doubt they contribute the groundwork of some of our most remarkable varieties. There are several other species of wild jungle-fowl, to which we shall here only briefly allude, as they are not likely to have contributed to the establishment of the domestic race. One of these is the Bronze Cock of Sumatra, (*Gallus aeneus*), a fine species, remarkable for a large comb, smooth along the ridge. The neck is not covered with true hackles. Another is the Ayam-alas jungle-fowl or fork-tailed cock of Java, (*Gallus furcatus*.) This species has no true hackles on the neck, and the throat is adorned with a single large wattle only, springing from a central line."

In our next and succeeding numbers, we shall give descriptions and illustrations of other kinds of fowls, and the different classes of poultry.

#### Profits of Hens.

Dr. J. BARSTOW, of Chicago, kept an account of the expense and income of fifty hens, for one year. The cost of keeping on corn, was about twenty-five cents for each hen. The hens averaged ninety-one eggs each. One of the editors of the *Prairie Farmer* states that he has kept forty hens the past year; that the cost was about the same as given by Dr. Barstow; but the fowls averaged only sixty-five eggs each. The fowls in both cases were confined to a yard, but one lot of them were allowed to have their liberty for a part of each day. They were fed with fresh meat occasionally.

**LARGE POULTRY.**—At a show held in England, under the direction of the late Earl Spencer, the following were the dressed weights of some of the poultry exhibited: The best turkey weighed twenty lbs. 4 oz.; capon, 7 lbs. 14½ oz.; pullet, 6 lbs. 3¼ oz.; goose, 18 lbs. 2½ oz.; couple of ducks, 15 lbs. 10 oz.



1. Black Tartarian.—2. Mayduke.—3. Black Eagle.—4. Knight's Early Black.—5. Elton.—6. Graffion.—7. Downton.—8. Downer.

## The Horticultural Department.

CONDUCTED BY J. J. THOMAS

### The Eight Cherries

*Selected by the National Fruit Convention of New-York.*

THE National Fruit Convention, held last autumn in New-York city, selected through its fruit committee, and after deliberate discussion, adopted select lists of the different kinds of fruit, consisting of such varieties as thorough trial entitled to rank as *worthy of extensive cultivation*. Among them, the eight varieties of cherry were chosen, as figured above. A part of them may be old acquaintances to many of our readers, but we believe some remarks on the character of the *eight best and most thoroughly proved varieties*, cannot fail to be interesting to many young cultivators.

#### I. BLACK CHERRIES.

1. **Knight's Early Black.**—This excellent cherry was raised by the late President Knight, of England, from the seed of the Graffion or Bigarreau, fertilized by the Mayduke. It partakes chiefly of the character of the former, and is distinctly a heart cherry, the fruit being improved by the cross in an approach from the firm flesh of the Graffion to the tender juicy flesh and higher flavor of the Mayduke. The growth of the tree much resembles that of the Graffion. The fruit is large, very slightly irregular, or wavy in outline, obtuse, heart shaped, nearly black; stalk an inch and a quarter to an inch and a-half long, rather stout, *in a deep cavity*; flesh blackish crimson, very tender, juicy, of a rich, sweet, and excellent flavor. In quality, it resembles the Black Eagle, but is slightly larger, earlier, and is readily distinguished by its much deeper cavity at the stalk, and by the more downy axils at the midrib on the under surface of its leaves. The figure represents the average size only; larger specimens are often found. It ripens about the middle of 6 mo. (June.)

2. **Black Tartarian.**—A well known and most popular variety, which originated in Russia. The

growth of the tree is vigorous, the branches erect, leaves large, dark green. Fruit quite large, often an inch in diameter, but on the densely loaded branches of full bearing trees, sometimes not more than seven-eighths of an inch; heart-shaped; surface uneven or wavy, glossy; blackish crimson, becoming nearly black; stalk an inch and three-quarters long, moderately sunk; flesh dark crimson, not very juicy, sweet, rich, moderately high flavored. Ripens nearly the same period as the preceding.

3. **MAYDUKE.**—Another well known and excellent cherry, very hardy, and adapted to nearly all climates in which any varieties thrive. In richness of flavor it is unequalled among the class of sour cherries. Fruit large, varying from roundish to obtuse heart-shaped; changing from red to nearly black; flesh dark red when ripe, very rich, juicy, acid, and high-flavored. The growth of the tree, although somewhat irregular, has unusually upright branches for the sour class. It is remarkable for the variable period of its ripening, commencing early in 6 mo. (June) and often continuing 6 weeks; the same tree often bearing ripe fruit on one part and green on another, and in rare instances, ripe fruit has been found growing side by side with green and half-grown specimens. The fruit is usually gathered long before full maturity, and before the flavor is at all developed, and hence many who have eaten it for years, are ignorant of its real excellence.

4. **BLACK EAGLE.**—A cross of the Graffion and Mayduke, much resembling Knight's Early Black, but distinguished as already pointed out. Rather large, obtuse heart-shaped, blackish crimson or nearly black; stalk moderately slender, an inch and a-half long, but little sunk; flesh dark crimson, rich, high flavored, less bitter than the Black Heart, and less insipid than the Black Tartarian,—which in time of ripening it immediately succeeds.

#### II. LIGHT COLORED.

5. **ELTON.**—Raised by President Knight from seed of the Graffion, fertilized with pollen of the White Heart. Fruit rather large, ovate heart-shaped, somewhat



pointed at apex, often a little oblique, reddish yellow in the shade, red in the sun; stalk two inches long, slender, slightly sunk; rich and very high-flavored; stone rather large. It ripens immediately after the Black Tartarian, and has proved very productive in Western New-York. It is one of the few cherries which have strongly colored reddish-purple petioles.

6. **GRAFFION**, *Bigarreau*, or *Yellow Spanish*, the *White Bigarreau* of Manning. Very large, often an inch or more in diameter, obtuse heart-shaped, flattened at base, smooth and regular; pale waxen yellow in the shade, a bright red cheek in the sun, with minute intermediate carmine dots; stalk rather stout, one and a-half to two and three-quarters of an inch long, in a wide, shallow cavity; flesh yellowish white, firm, sweet, of a good but not very high flavor. It ripens after the Elton or the latter part of 6 mo. (June.) Its popularity is increased by its size and beauty, being one of the smoothest and most finely colored of all cherries.

We have tried to adopt the name *Bigarreau*, as given by Thompson and Downing; but from the great number of other varieties called *Bigarreau*, each of which has some distinctive epithet, while this has none, difficulty has arisen, and we have concluded to return to the old name, *Graffion*.

7. **DOWNTON**.—Large, obtuse heart-shaped, roundish, surface slightly wavy; light yellow, intermixed with dots and shades of light red; stalk one and three-quarters to two inches long, in a rather large cavity; flesh yellowish white, tender, delicate, of a sweet, rich, and excellent flavor. Not so handsome as the *Graffion*, but superior in flavor, and ripening nearly at the same time, or scarcely later.

8. **DOWNER**, *Downer's Late*, or *Downer's Red*.—Originated at Dorchester, near Boston, and is the only one of these eight varieties, of American origin. It is medium in size, very regular round heart-shaped; bright red, becoming darker and full red when ripe; stalk one and a-half to one and three-quarters inch long, in a very even small cavity; suture a single line on one side; flesh soft, with a high and very good flavor. Like all high-flavored varieties, it requires full ripening to become good. It ripens some days after the *Downton* and *Graffion*. The growth of the tree is rather erect, more so than any of these eight sorts, except *Black Tartarian*. It is very productive.

The figures given, were all drawn from specimens of medium size under good culture, grown in western New-York, and do not perceptibly vary in size with those grown in other regions of the country.

#### Selecting Varieties of Fruit.

Judging from Books and Nursery Catalogues, an inexperienced cultivator would be struck with the mighty host of rich and splendid varieties in cultivation; and would perhaps consider it only necessary to make a random plunge into the vast collection in order to obtain a choice number, more or less, as he might need. Single nurseries contain in some instances hundreds of varieties, all, of course, worthy of cultivation,—else why would they be cultivated? The London Horticultural Society has 900 different varieties, after rejecting several hundred others as worthless. In this country, in addition to the existing multitude, new sorts are constantly springing up and rising into notice with high recommendations.

At the late American Congress of Fruit Growers in New York City, a motion was made by a distinguished member, to *cull* from this vast assemblage—to reject all but the very finest, and to appoint a committee to bring in a **SELECT LIST** of 100 sorts of apple, 100 of pear, 50 of peaches, &c. A committee of nine was appointed, without restricting them to the exact number,

and they immediately commenced the work of selection. They adopted a liberal basis—did not agree to pronounce all their recommended fruits as *first rate*, but only worthy of *general cultivation*; they did not require a unanimous vote in committee in favor of any sort, but only a two-thirds majority; and they agreed to propose to the convention as large a list as they could thus agree upon.

Very well,—and what was the result, with all this latitude, and with this host of varieties to select from? After several hours of labor, the committee could agree to recommend but **TEN varieties for GENERAL cultivation, and FOUR for PARTICULAR LOCALITIES**. A great number of others were proposed, but none passed examination. The great Pomological Garden of Robert Manning at Salem, contains a thousand varieties of *pear* alone;—the committee could agree to recommend twelve as worthy of general cultivation. *Nine Peaches, eight Cherries, and eight Plums*, were all that were chosen of these respective species. Indeed, so difficult was it to propose any sort, to which some serious objection was not known by members of the committee, that it was admitted that but little could be accomplished, unless *new varieties of the right stamp could be manufactured to order*.

The truth is, there is a very large number of fruits, and especially apples, in all parts of the country, that are *almost* first rate, and *almost* worthy of cultivation; but having reached that particular level it seems nearly impossible to strain the point a single notch higher. Hence, if the cautious cultivator, after procuring a hundred new and highly praised sorts, shall find *one* that is decidedly first rate, and excellent in every particular, he may regard his labor as well repaid. But it should be constantly borne in mind, that no new fruit deserves adoption, which is not decidedly superior to old varieties of the same season of ripening, in at least one important particular, superadded to fine quality.

#### Preserving Grafts.

We are often asked, if grafts may be cut in winter and kept in good condition a month or two before setting in spring. When we answer that we have kept grafts cut in the latter part of summer until the following spring, in a fresh state, and which grew and flourished, the difficulty will vanish.

Many persons mistake the mode in which scions are spoiled in keeping. We sometimes see the cut ends carefully covered with wax, to preclude the escape of moisture from the sap pores, and at other times the ends are stuck into a potato, for the same purpose. Now, it happens that nearly all the moisture escapes through the pores in the bark; hence it is of greater importance that the sides of the shoot be well covered with a moist substance. Many cultivators preserve grafts in good condition by partially or wholly burying them in the earth of a cellar; but they become thus covered with sand and grit, and injure the grafting knife, unless well washed. Another mode, avoiding this difficulty, and by which grafts may be kept through winter, is to bury them, out doors, in a box open at the bottom only, the grafts being kept from contact with the earth below them by cross sticks in the box. But the best mode, is to fill a large box with fine pulverised moss, or still better, with moist saw-dust, in which the grafts are simply immersed, and which are thus packed away or withdrawn with the greatest ease, at any desired moment. A box of sawdust, in a cool cellar, will remain moist without watering for many weeks. Too copious or too frequent an application of water, would cause decay in the buds. On the other hand, a slight withering is safely and gradually restored by a moderate increase of moisture. In one in

stance, we received a bundle of grafts in autumn, from some hundreds of miles, the leaves being left on to keep them moist, but in reality causing them to wither rapidly by throwing off the moisture. When received they were quite dry; but they were well encased in moss, and buried in the earth till next spring, when they were perfectly plump, and being set, all grew.

Grafts or buds, to be forwarded by mail, may be kept fresh, by wrapping each shoot in oil-cloth or oil-silk, (such as is used for lining straw hats,) drawing it closely around it by means of fine thread. This encloses all the moisture in an air-tight casing, and it remains unchanged for many days.

#### Management of House Plants.

INQUIRIES are frequently made as to the successful management of green-house plants, which are kept in the rooms of dwellings. A chief error in their winter treatment, consists in making no distinction between their condition while rapidly growing, and in a dormant state. When vegetation is in full progress, warmth and a large supply of water, are indispensable. But during the period of rest, plants should be kept cool and rather dry. A temperature of 50 degrees is much better than that of ordinary living-rooms. While in this stationary condition, very little moisture is given off through the leaves; while growing, it is thrown off rapidly. Hence water is to be applied very sparingly, and at remote intervals, in winter; as very little escapes by direct evaporation from the soil. So long as a moderate degree of moisture is found beneath the surface of the soil in the pots, watering should be omitted. Thorough drainage is also of importance, and is well effected by filling one-fifth of the pot at the bottom with fragments of charcoal. Washing the foliage from dust, should be attended to, and may be conveniently done by syringing with *tepid water*, turning the pot at the moment on its side, that the soil contained it may not be too much soaked. In the absence of a syringe, a small watering-pot, with fine perforations, held at a little height, will answer a good purpose. The chief requisites, then, for good management, may be summed up as follows:—

1. Spare watering;
2. Low temperature;
3. Plenty of light;
4. Drainage;
5. Washing foliage.

#### Prices of Fine Fruit.

In many parts of the country, a greater number of trees have been set out within the past five years, than during the whole previous period back to the settlement of the country. Many have hence believed that the market would be surfeited when these bear, and hence have ceased to set out trees. Is their judgment correct? Let us glance at a few facts.

The great peach orchards of New-Jersey and Delaware have long been famous, many occupying a hundred acres or more, and one, the celebrated orchard of the Reybolds, covering a thousand acres,—whose crops were so large as to give constant employment to two steamboats and a schooner in conveyance to market. As a consequence, the price of peaches has fallen quite low in comparison with former times. Much smaller orchards, near smaller cities, have glutted the market. But it must here be observed, that the peach is a very perishable fruit, and can be kept a very few days at longest. Plantations of perishable fruits for market, are therefore to be made with some caution; but the objection will scarcely exist with such as keep for months.

If one large city will afford market for but a few

steamer-loads of peaches,—which must all be consumed within three days after being purchased,—fifty times the amount of keeping fruit will find consumers, if it may remain on hand for months together. Especially will this be the case, when it is remembered that peaches make their appearance amid a profusion of other fruits; while keeping fruit extends its period of use into the dreary season of the year. But, a single city no longer becomes the limited market for such fruits; the whole country is open; and no night-and-day labors are needed to hurry them into market before decay seizes them. Railroads and canals will take them to any part of the Union; and not only this, but millions in Europe are ready to consume our fruits when our orchards furnish a cheap supply.

The Newtown pippin has already found its way to Europe; but the amount at present, when compared with what it is destined to be when orchards are profusely multiplied, and facilities, and cheapness, increased, is but the slender rill to the mighty river. To produce this great increase, the prices of varieties for export need not be extremely low. They are now high. In the great apple region, Western New-York, the orchardist gladly disposes of his good winter apples for seventy-five cents per barrel, and then makes more from a few acres of orchard than from a hundred-acre farm besides. The Northern Spy, a productive variety, long-keeping and handsome, is eagerly bought at two dollars and three per barrel, for home consumption. Good Newtown pippins in quantity command a high price; and well cultivated orchards of them, in favorable localities, must afford a very comfortable profit to the owners, even when the fruit is much cheaper than at present, a thing by no means certain to take place during the present age, with a whole hungry year and hungry millions ready to consume them. The price of good winter apples at the present moment in Western New-York, does not vary ten per cent. from the price thirty years ago, nor has it fluctuated much during the long interim.

In many parts of the country, the White Doyenne or Virgalieu pear; is a remarkably healthy and productive tree, and yields uniformly fine and fair fruit. Crops from single trees of ten to fifteen bushels are frequent. The fruit raised so far north, matures late, and may be sent hundreds of miles to market. In New-York city, it sells readily for three or four dollars per bushel. Let, for the sake of argument, the trees be increased, so that the cultivator may get but fifty cents per bushel; would not the city demand for them, immediately increase fifty fold? All could then afford to eat them. Now, an acre, of a hundred trees, each bearing but five bushels as a yearly average, would give, at this reduced price, two hundred and fifty dollars a year from the acre—or an interest on some thousands of dollars.

With such facts as the above, we are compelled to conclude that the time has not yet arrived for land-owners to withdraw their attention to an increase of their orchards—but that while the population of the country, and facilities for conveyance, are multiplying so rapidly, prices of suitable varieties are as likely to rise as to sink below their present rates.

#### Early Lettuce.

The late Judge Darling practiced a mode of obtaining early lettuce, which would prove of value to all who cannot take the trouble to make hot-beds. Commencing with the well-known fact, that lettuce will bear considerable frost, and sometimes survive the winter unprotected, he applied various coverings, as straw, corn-stalks, stable litter, leaves, boards, mats, and even a large inverted box, enclosing plenty of air, but in all



these cases the plants perished. Judging that the failure might result from want of light, he applied a sash of lights to a bed of lettuce sown early in autumn. Entire success followed.

The frame, to be warm, was made thick, being constructed of six inch scantling, laid up like a log-house, sloping to the south, as in a hot-bed. The only care needed till spring is, that the snow does not become so heavily piled upon the glass as to endanger the panes, which, if small and thick, will not be the case. Raising the sash to admit air, when warm weather approaches, is all that is necessary. Spring rains should be admitted; or watering given.

We have obtained fine early lettuce, by transplanting fall-sown plants, which had remained dormant through winter, into a small hot-bed, made about the time the frost disappears from the soil, and which thus came into use two weeks earlier than from seeds sown directly into the soil of the hot-bed.

#### The Early Tillotson Peach.

Some of the finest fruits are slow growers in the nursery. The *Sine Qua Non* apple, one of the best and most productive early varieties, is of slow growth. Hence it has never been a popular fruit with nurserymen, with whom handsome and thrifty growth is a very important requisite, so long as purchasers regard the appearance of the tree they buy, more than the quality of the fruit it is to bear. For this reason, the Early Joe, a superlatively good apple, but of slow growth, will not probably become very popular, until the public find out that fine fruit and good cultivation, are quite as important as pretty trees when young.

It is for the same reason that the Early Tillotson peach is disliked and underrated. A nurseryman at first sees the tree only, which is not of handsome growth, and the leaves are often much covered with mildew towards autumn. He perceives at once that it cannot attract the attention of buyers, and it is neglected. But where it has come into bearing, it is better appreciated. It often requires two years from the bud, for the trees to attain the size of some other trees of only one year; but in many instances noticed, the old or bearing trees, growing more freely, are as large as other sorts of the same age. We have noticed bearing trees of all ages, from five to twenty years and more, and they would not suffer by a comparison with three-quarters of the other popular varieties of the same age, either in size or productiveness.

The season of ripening is very nearly the same as the serrated Early York, but is more variable, often considerably earlier, and sometimes even perceptibly later.

This peach appears to flourish at the south even better than here. T. S. Pleasants, near Petersburg, Virginia, says, "Among a great many fine varieties, there is none, taken altogether, that I esteem so highly as the Early Tillotson. It is of full medial size; its flavor scarcely to be surpassed; and in time of ripening it is earlier than any other peach of merit I am acquainted with. Had I only known its excellence in time, and planted as extensively as I might have done, it would have yielded me this season a large sum." At Edwards, Miss., it ripened on the 20th of 6 mo., (June,) one day earlier than serrated Early York; and at Mobile, Ala., on the 10th of the same month. A Mobile correspondent of the Horticulturist says, his trees were planted in 1847, "and from the few specimens on the trees this season, [1848,] I think they will be as good as could be desired." The trees must be kept well pruned, by the shortening-in mode, to have the fruit in perfection; we have frequently had fine, handsome, globular specimens, two inches and a quarter in diame-

ter. Many persons prefer its flavor to that of the serrated Early York, the reverse, however, often being the case. We do not regard it, taken altogether, as a variety of so high merit as the serrated Early York; but we consider it as too valuable to be rejected.

#### Orchards of New Hampshire.

In this locality, the first care of the settlers, was to plant an orchard. This was done on the best land their premises afforded; and as corn and grain produced without manure, that was put around the young apple trees. Consequently the trees grew rapidly and commenced bearing early. The great object for which an orchard was wanted, in those times, was cider, which was considered an almost indispensable beverage. I now see an orchard from which 70 to 80 barrels of cider have been manufactured in a single season, the whole being consumed in the family.

My grandfather settled here about eighty years ago, and cleared up from the wilderness. He planted an orchard of about eighty trees, bringing them from Plaistow, forty miles, *on foot*; and in ten years from the time they were set out, he made from them nine barrels of cider. Being highly manured, they matured quickly and decayed early, so that now only seven of them are left, and those are decaying. Such is now the fate of the first planted orchards; but new ones have been planted, and the character of the trees has been changed by grafting—fruit for market and domestic purposes, and not cider, being the object now. It is gratifying to see the change that has taken place within a few years in this respect. Thousands of scions have been set the present year, some sending to Boston for new varieties, and others procuring the best here. But from the manner in which *some* graft, we might conclude without further evidence, that they did not read "The Cultivator," otherwise, to say the least, they would not set scions in the extremities of the limbs of large and decaying trees. But these same individuals would no doubt be *horrified* at the idea of so far compromising their dignity as to admit they could learn anything from an agricultural publication! Here, as well as elsewhere, there are those who *know too much to learn!*

We have a young orchard of grafted apples, in which are some excellent varieties, and some that are inferior. The individual that grafted this orchard was *rascally* enough to put in scions taken from ordinary trees. Such a course cannot be too severely condemned, and the person who would do it is almost too *mean* "to get a living by stealing." The safest course is for every farmer to do his own grafting, or at least to select his own scions; and then, if, after waiting anxiously a number of years, he finds his trees bear inferior fruit, he has the *satisfaction* of knowing that there is no one to blame but himself. With good tools and grafting wax, and care in setting, every one may graft his own trees, and he will find his advantage in so doing. W. L. EATON. *East Ware, N. H., November 20, 1848.*

#### Seasonable Hints.

During mild weather in winter, hardy fruit trees may be pruned, as well as grapes, and grafts may be cut. Young fruit trees, which have not had a conical bank of earth thrown round them,—the most perfect protection from mice—should have the snow trodden round them as often as it freshly falls, which will exclude the mice from them. Catterpillar eggs—known at a glance by their knobby clusters on the smaller branches—should be torn or cut from fruit trees before they hatch in spring.

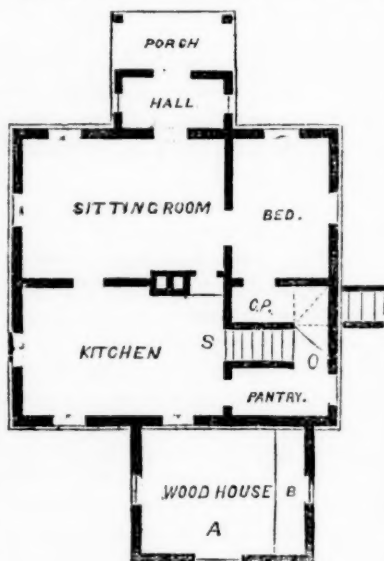


6-ELEVATION.

## Rural Architecture.

### Plan of a Small Farm House.

EDS. CULTIVATOR—Enclosed is a plan and perspective view of a SMALL FARM-HOUSE. It will be seen by a glance at the plan, that the house is nearly square—the cheapest of all forms. The size is 29 by 26 feet, with a hall and porch, together 10 feet square, and a woodhouse in the rear, 12 by 16 ft. The hall is placed in the middle of the front, and may be lighted by a window on each side, of the width of one glass, or by a window in the door. From the hall, we enter the sitting room, which is  $12\frac{1}{2}$  feet wide by  $18\frac{1}{2}$  long, lighted by 2 windows, and has a crockery closet at c. At the left as we enter, is a bed room, 9 by  $12\frac{1}{2}$  ft. with a large clothes press under the stairs; passing through we enter the kitchen, 12 by  $18\frac{1}{2}$  ft., which is lighted by two windows, and has doors opening to the pantry, stairway and woodhouse. The pantry, (5 by 9) is lighted by 1 window, and has a door at o. opening on the cellar stairs. In the wood house, A. is an opening for throwing in wood, six or seven feet from the floor, four feet square, closed by a door; B. is a work-bench, with a window over it.



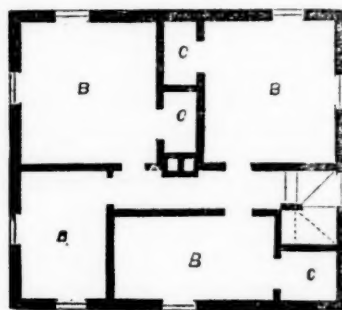
7—FIRST FLOOR.

On the second floor are four fine bed rooms, three of which have commodious closets. The garret can be reached through a scuttle near the chimney, by means of a light ladder, which, when not in use, might be

placed against the wall at L. The first floor is intended to be nine feet high, the second eight. The cellar might be made under the whole house, or only under the back half. O. is the outside cellar stairway.

It will be objected by many, that this house has no parlor. This plan is not intended for those who have the means to build a room *especially for company*, but for that large class of farmers, who, while they desire something convenient and tasteful, cannot afford to pay for a room which they do not use themselves.

A glance at the plan will show, that it is intended to be built of wood. For the outside covering, perpendicular boarding is preferable to clapboarding, because it is firmer and cheaper. I hope the exterior that I have sketched, is sufficiently expressive of ruralness. Although the desire for novelty, and the wand of fashion, have done much towards creating the prevalent rage for Rural Gothic dwellings, yet the intrinsic beauties of the style will always command for it the admiration of the rural architect, and it has now become so common in most parts of our country, as no longer to be considered a fantastic novelty by the staid portion of our people. All who examine the various forms of domestic architecture can now easily have opportunities of seeing its beauties and detecting its faults.



8—SECOND FLOOR.

The features which designate principally the style of this building, are the verge boards and the bold projection of the roof. (The roof in the engraving is represented hardly steep enough for the style.) To support this projection, the rafters (which should be of rather large size, say 6+4 in.) should run past the plate their whole size, about 18 inches or two feet.

The square end of the rafter, is, I think, a decidedly ornamental feature of the otherwise plain eaves. The verge boards I have represented in the heaviest style that is admissible, because any but *substantial*



looking ornaments are out of place on a farm house, and as a kind of example to operate against the other extreme—flimsiness. The only finish necessary for the roof projection, is, that the roof-boards over the projecting part should be of inch and a-half stuff, (to prevent the shingle nails from coming through) planed on the under side, and matched. The eave trough might be of tin and nailed to the roof, or formed by nailing a narrow board to the edge of the lower roof board. The ceiling of the porch should be made in the same way as the roof projection; the posts of six inch stuff made octagonal by trimming off the corners, the top and bottom being left square. The front door I have represented in the drawing as pointed. As, however, there is no other feature of the kind in the house, I have come to the conclusion that it looks ambitious and out of place, and I beg leave to have the reader consider it square. To the chimney I have sought to give an ornamental effect, by capping it with two slabs of stone.

I will conclude with a few words in regard to the interior finish. In all parts of our country *pine* is the material most used for the interior woodwork of dwellings, and it is a common practice to cover it with white paint. How such a practice could ever have obtained, among an intelligent people, I cannot understand. Its warm lively color, when freshly planed, is peculiarly adapted to give to rooms a cheerful and smiling expression. When we know that this pleasing tint can easily be preserved, and rendered even more soft and bright by varnish, at no greater expense than would be incurred in giving it a good coat of paint, can we help being surprised that its beauties have been so long carefully concealed by the cold glare of white paint? Besides, the color of the pine, as brought out and preserved by varnish, harmonizes with furniture much better than any paint, and would of itself add much, apparently to the furniture of a room. Darkened and mellowed by time, it would at length, with the inmates of the house, assume that sober though still cheerful expression, which gives to age one of its greatest charms.

While on this subject I will say a word about black walnut, which, where the intention has been to varnish, has been used more than any other wood for the interior finishing. It has been much used in cabinet work, and is one of the most beautiful of our native woods. Its dark rich shades impart to the lofty apartments of mansions a stately and appropriate dignity, but for the rooms of ordinary residences, its sombre hue renders it quite inappropriate. And were I to have the choice of two evils, I would prefer white paint with its glare to black walnut in its gloom. F. J. SCOTT. Toledo, Ohio.

#### The Working Woman's Cottage.

EDITORS OF CULTIVATOR—Thinking I may be of some use to the class to which I belong, I herewith send you a plan of a "Working Woman's Cottage," which is particularly adapted to her use.

In sketching this house, my first and most important object is convenience; the next is pleasantness; the third, is economy in cost of building; the last, is a tasteful and inviting appearance.

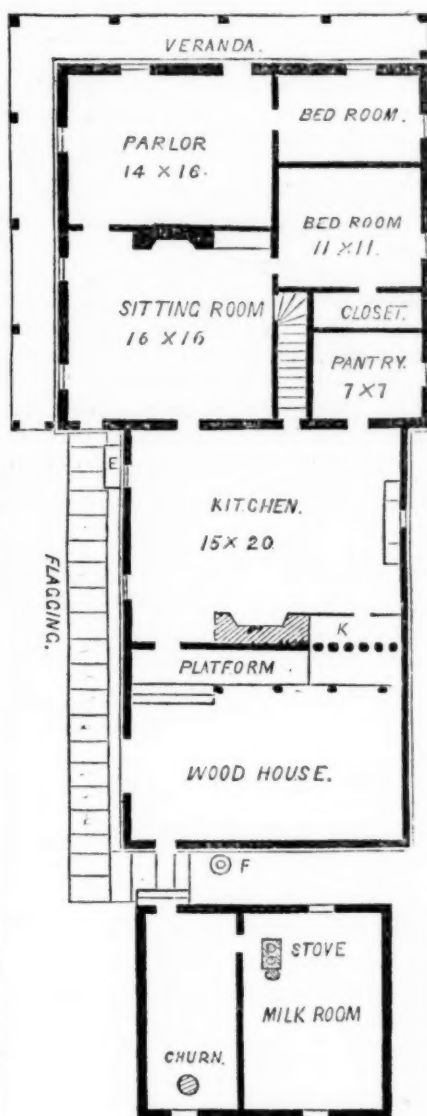
The main part of the house is 27 by 30 feet, one story and a-half high, with attic windows, above the veranda; these windows answer every purpose for chambers, and are an ornament to a house.

The veranda will be in front and on one side, with 2 doors and 4 windows opening upon it, the blinds must be alike to all, reaching to the floor.

What a delightful place for the family group to assemble in and spend the fine summer evenings, after they have finished the labors of the day. If any abode

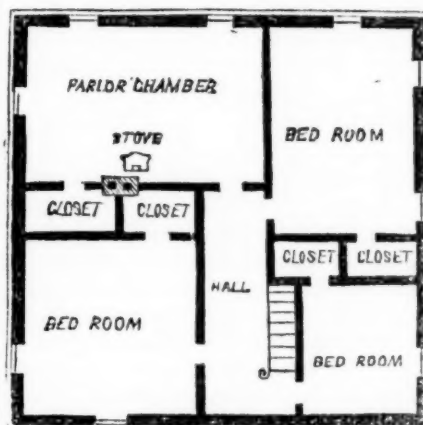
on earth ought to be pleasant, it is that of a working family, their social privileges being more limited.

The platform under woodhouse, should be large enough to wash on in the summer. E. Outside cellar door.—F. Pump.



9—FIRST FLOOR.

any time; her kitchen will also be her eating room, except in very warm weather. The chimney is to be built from the bottom of the cellar, with a fire-place if wanted. Stoves are best in winter, fire-places in spring and fall.



10—SECOND FLOOR.

up stairs and two below.

Some men will place a veranda on one side of a

As you enter the kitchen from the woodhouse first comes the cooking stove, and fire place, next the closet (K.) for kettles, and many other things not fit to be put in the pantry; next, if you wish, the shelf for the water pail to stand on, the sink, with a shelf at the left hand to put dishes on; then the pantry door, with a space between that and the cellar door.

Next in order is the sitting room, a pleasant convenient room; the working woman's sitting room, will also be her nursery, her library, her vestibule; her bed room, is pleasantly situated with a convenient closet, her parlor is handy by, where she can use it at

I omit a hall, for the sake of convenience, to get the number of rooms wanted in a certain space, also to have doors, opening upon the middle of each veranda.

This house contains all the room a common sized family needs, with four sleeping rooms

kitchen, and bed-room and pantry on the other; such kitchens are good for nothing to work in.

Those little attic windows are so nice and convenient for chambers, so easily cleaned, just high enough to look from when sitting in a chair, and are out of the way of children. I do detest large chamber windows, coming almost to the floor; it is such a *big job* to clean them, and so much danger of children falling out.

What can be more unwished for, than a great house on a farm, with two or three flights of stairs? I would not purchase a farm with such a dwelling house upon it, unless I wished to live in perfect slavery.

A farmer's wife has exercise enough during the year, without more room to take care of than is actually necessary.

How many great awkward 2-story farm houses, we see, with the front part shut up and inhabited only by spiders and flies. Then little cottages, with two or three wings patched on to them; if their internal arrangement is as irregular as their external appearance, they must be prodigiously inconvenient.

I do wonder that men of sense, will erect such dwellings. When some persons undertake to build a farmhouse, the first and most important consideration is to be sure and have it look well on the outside, to arrest the attention of the passer-by. When this purpose is accomplished, they are abundantly satisfied; it matters not how inconvenient or unpleasant they are within.

Some persons think a milk-house, ought to be built partly of stone, with stone floor. This is a mistake; stone causes dampness, which prevents cream from rising. Milk requires a dry, cool place.

There ought to be shade trees, on the south and west side of the dairy house. This house will be easily built, easy to live in, easy to be paid for. The cost, including dairy house, if well built, about 1,000 dollars. This is just as I should want a house at all times and seasons.

If necessary or desirable, the space at the side of the kitchen chimney, marked for kettle closet, could be converted into a bathing room, and but a trifling expense would be necessary to construct a shower bath, and might save sickness and the dreaded "doctor's bill."

A FARMER'S WIFE. N. Y.

#### An Acrostic.

Another year, its wings bath spread,  
Light sits the crown upon its head;  
Bring flowers of Hope, a garland twine  
Around the infant Forty-nine—  
Nor seek to stay his flight with tears,  
Yet stored for sins of former years.

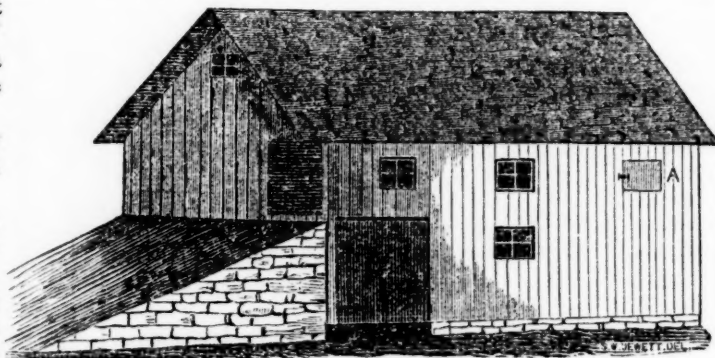
Contributors and patrons dear,  
Untrammelled we present our cheer—  
Last'ning to all, with willing mind,  
To find the *truth* we're still inclin'd;  
Intending always to advance  
Various improvements, which, perchance,  
Assist the hardy sons of toil,  
To become masters of the soil.  
Onward our course—which to maintain,  
Remember, friends, your aid we claim.

**ECONOMY OF LABOR** may be attained in many ways upon the farm, by the exercise of thought. A single example,—by building the barn on a side hill, so that the loaded team may be driven pretty well up towards the roof, and so that the load may be pitched down instead of up, would prevent a great deal of hard exercise of sinews in elevating the loaded fork.

**ANALYSIS OF SOIL.**—Pro. J. P. Norton of Yale College, thinks that a good agricultural chemist cannot be made with less than two years of experimental study, in this particular department.

#### A Two-story Sheep-Barn.

The annexed engraving represents a barn for sheltering sheep. The plan is adopted and recommended by Mr. S. W. JEWETT, of Weybridge, Vermont. It will be seen that the building has two floors for the sheep—thus doubling the accommodations. Mr. J. says, a shed 18 by 26 feet, with posts 13 feet high,



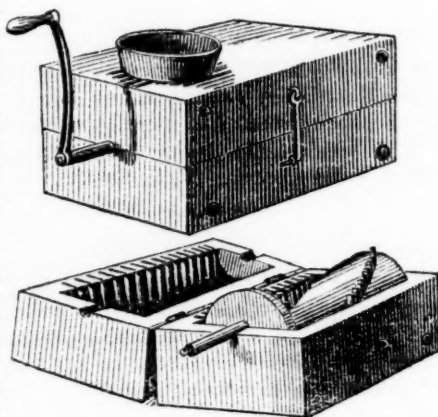
13—TWO-STORY SHEEP BARN.

will make room for two flocks of sixty in each, including the space occupied by the feeding boxes. The sheds should be lighted and ventilated by slide windows on each side.

"Some of these sheep-barns," says Mr. J., "I build of sufficient size to contain hay at one end. The cut here given shows one of this class, 25 by 34 feet; 12 feet at one end is occupied for storing hay; the door represented at A. is the pitching hole. The basement is constructed with double doors of sufficient width for backing in a cart or sled. To accommodate in loading the manure from above, we raise a plank in the floor. Some of these sheds are erected near our hay-barns, where we can take advantage of the rising ground to obtain access for the sheep to the upper story. At other places the ground is artificially raised at one end, as in the accompanying draft." It is proper to remark that the upper floor should be so tight that the manure and urine should not fall on the sheep below, as it would injure their fleeces.

#### Sausage Cutter.

The annexed cut represents a valuable machine for cutting sausage meat, where the business is extensively carried on. It is very generally used in the New England states. It makes a great saving of labor over the old mode of chopping.



14—SAUSAGE CUTTER.

One man can cut from eighty to a hundred pounds of meat an hour. The teeth being set spirally round the cylinder, the meat is conveyed, in turning it, from the place where it is put in, to the opposite end of the machine, where it is discharged through an orifice in the under side. It is made sufficiently fine by being once passed through. The price of the machine is \$12.50. A smaller kind, which will perform the work by the meat being passed twice through, is sold at \$5. For sale at the Albany Agricultural Warehouse.



## The Farmer's Note-Book.

### Culture of Cotton.

WE have lately received a pamphlet on the composition of the Cotton Plant, with suggestions as to the use of manures, and the proper cultivation of the crop. The author is THOMAS J. SUMMER, Esq., of South Carolina, who carried on his analytical investigations in regard to the subjects here treated of, in the laboratory of LIEBIG, in Germany, and we are informed that the correctness of the results is sanctioned by that celebrated chemist. The work, however, is not offered as the basis of a new theory for the production of cotton, but merely as suggestive of a more profitable mode of cultivating the plant. After having stated the result of the analysis of the plant and the seed, the author submits some remarks in regard to cultivation and manuring, which are deserving the attention of every cotton planter. His first suggestion is the adoption of a system of *fallowing*, for which he gives the following reasons:—

"A system of tillage, which carries away annually so large a portion of these natural essentials to vegetation, and which provides no means of returning them, must necessarily impoverish any soil. A fixed principle in the agriculture of all countries where the prosperity of the future has been at all regarded, has been, the gradual but certain improvement of the soil. This is necessary for the support of increased population, and in the slave states, where there has been such an extraordinary and rapid increase of the laboring population, it should never be lost sight of. The intensity of our southern sun-shine, prevents, in a great measure, the annual coat of grass which supplies vegetable matter to the soil in northern climates, and the never-ending occupation of the soils, by our system of culture, prevents the natural improvement which in other countries is carried out by fallowing. We are well aware that fallowing is generally objected to in the south, and we think where fallow is converted into pasture land, and taxed during the whole season for the production of herbage to sustain greedy herds, the system might well come into disrepute. Planters too, object to fallowing, and say they have not land enough to allow one-half to lie idle, but reason and justice to the noble occupation of agriculture, allows this objection to pass unheeded; and its fallacy is proven by the desert wastes of "*old fields*," an agricultural feature only common to the New World, and we blush to say it, only visible to the southern planting states. In Europe, where arable soil compared to population, is a thousand times scarcer than in the southern states, the agriculturists find fallowing a remunerating system. It is but little understood in American agriculture, and we may be pardoned for giving the proper details for fallowing, believing it to be the *cheapest* manner of renovating our soils. A field intended for fallow, should be deeply plowed in mid-winter, the deeper the plowing the better. This is simple preparation, but nevertheless, necessary; and above all things, keep every description of stock off the field. The porousness of the soil will facilitate the assimilation of the natural salts of the earth, and atmospheric action, with the dissolving influence of the rains, will generally bring to the aid of the succeeding crop, a sufficient quantity of these for its production. Late in autumn the herbage should be turned under. This process exerts a chemical and natural influence beneficial to the soil; first, as by decomposition of vegetable matter carbonic acid is produced, which is known to act as a powerful solvent of phosphated alkalies; secondly, those portions of the grass and weeds, not readily decomposable, when admixed with the soil,

gives it that friability so necessary to easy tillage, and thus aids the agriculturist in his future labors. A system of green fallows might, by the aid of the Black and Red Tory pea, be judiciously adopted in the cotton growing states. Owing to their imperviousness to wet, they can be sown in mid-winter, and vegetating in the spring, without the aid of cultivation, generally make, upon ordinarily productive land, a sufficient crop to protect it from the sun in summer, and smother out those weeds which are such a pest to cultivated crops. The constituents of the Indian pea—known to be in a great measure derived from the atmosphere—would, in all probability, furnish a better green crop for subversion, than the natural grasses and weeds."

As an auxiliary to fallowing, he recommends the application of compost of muck, leaves, and other vegetable matters, with animal excrements; also bones, guano, wood ashes, and lime. He recommends dissolving the bones according to the mode practiced by Prof. LIEBIG, as follows:—"Pour over the crushed bones or bone ashes, half their weight of sulphuric acid, diluted with four parts of water, and after they have been digested for twenty-four hours, add one hundred parts of water; sprinkle this mixture over the field immediately before plowing. By its action, in a few seconds, the free acids, uniting with the bases contained in the earth, a neutral salt is formed, in a very fine state of division. Experiments instituted on soils, for the purpose of ascertaining the action of manure prepared in this manner, have distinctly shown that neither grain nor kitchen garden plants suffer injurious effects in consequence, but that, on the contrary, they thrive with much more vigor after its application."

### Culture of Potatoes in Kentucky.

EDS. CULTIVATOR—The rapidly increasing trade and population of New Orleans, together with the immense floating multitude upon our western waters, renders the potato crop one of considerable importance.

Up to the 4th of November, of the present season, *thirty-five thousand eight hundred* barrels, are reported to have been shipped from the port of Louisville, nearly all of which were raised within the immediate vicinity of the city, several individuals having planted *one hundred* acres each.

As our mode of cultivating this crop differs in some particulars from that practiced in some other portions of the Union, I will briefly describe it.

The variety now mostly esteemed and cultivated, is the Neshannock or Mercer, producing a small top, and the tubers forming immediately at the base of the vines, they occupy less space than most other kinds. None but the best and largest seed should be planted. The old and long cherished plan of planting "*in the dark of the moon in June*," has mostly been abandoned, and they are now planted as early in the spring as the ground is in a fit condition to work. It is thoroughly plowed, as deep as it can conveniently be done, and harrowed. The rows are then laid off with a two-horse plow, about two and a half feet apart. The seed should be cut into pieces of two or three eyes each, and exposed to dry for several days before it is planted. The pieces are dropped about eight inches apart in the rows. The covering is done with a one-horse plow, throwing a full furrow. As soon as the plants begin to appear near the surface of the ground, the whole is again harrowed across the furrows, leaving the ground level, and entirely destroying the young weeds. In eight or ten days the cultivator is passed twice between the rows; and when the plants have reached the height of eight or ten inches, they are braced up by throwing with a single plow, a moderate furrow on each side. This again covers and de-

stroys the weeds. The crop is now "laid by," except in some cases where it may afterwards become necessary to "chop out" some of the largest weeds.

The harvesting and shipping commences about the 1st of July. The ground that is in good condition, when the crop is removed by the 20th of the month, is then set in cabbages. The plants being quite old, and ten or twelve inches in height, thereby securing two crops in the season from the same land.

Some good gardeners have adopted the plan of planting two-thirds of their ground designed for melons in potatoes, omitting the rows where the vines are to grow. Before the melons require the ground, the potatoes are harvested, leaving the ground in fine condition for the coming crop.

That portion of the crop designed for winter use, is suffered to remain in the ground until fall, and is less exposed to injury from heat than when harvested sooner. In gathering, a two-horse plow is run immediately under each row, and when well done, but little labor is required to complete the work. H. P. BYRAM. *Louisville, Ky., Dec., 1848.*

#### Progress of Agriculture in Ohio.

Perhaps there is no subject more appropriate to the opening year, than some account of the condition and progress of this earliest settlement of the now great state of Ohio.

It is not necessary to speak much of the past—the enterprise, bravery, industry, privations, and suffering, of the hardy and distinguished pioneers of the old county of Washington—are they not written in the chronicles of our common country, to be known and read by all men?

They were, many of them, fresh from the battle-fields of the revolution, and with a noble daring they sought to establish, upon these rugged hills and within these fertile valleys, the comforts and institutions of their New-England homes. The measure of their success can only be ascertained by observation of the present. Their children's children, with such others, also worthy, as have been gathered from the four quarters of the globe, are here to-day, all Ohioans—bound in sympathy and destiny to this, now perhaps, second state in the great confederacy.

There are, however, many things which we may learn from you of New-York, and the rest of the country, and hence we rejoice in the circulation of "THE CULTIVATOR," a national periodical.

We have in this county over seven hundred square miles of territory, occupied by nearly thirty thousand inhabitants, in the main, intelligent, moral and thrifty. The vacant lands are fast being taken up by emigrants from Eastern Ohio and Western Pennsylvania, owing to their comparatively low price. Increased attention is being devoted to the growth of wheat; to this end, the culture of clover is attracting far greater attention than formerly.

In many parts of our county, the *skinning* system has so long prevailed, as to open the eyes of our farmers to the necessity of reclaiming the pristine fertility of the generous soil. A plan, adopted successfully, is, to sow clover upon wheat, and before sowing again, permit a crop of clover to ripen and bear seed, to be turned in; and thus the land is enriched and seeded by the same process. If with this treatment, lime could also be used, of which we have great abundance, the advantage would, doubtless, be far greater.

Most of our soil retains its virgin richness, and hence we have not studied with Flemish care, the art and economy of saving and applying manures best adapted to the soil and crop; but as necessity is the great mother of invention, doubtless we shall improve in this regard.

This is not regarded as the most favorable part of Ohio for raising wheat, corn being the leading staple; yet an improved husbandry will increase our wheat crops greatly; and in this, our Scotch fellow-citizens are good examples.

You are aware that we have an Agricultural Society in successful operation, and during the past summer we organized and sustained a Horticultural Society with great interest. There is also a District Agricultural Society in the county, embracing four excellent townships. It is somewhat difficult to arouse the public attention to an adequate appreciation of the importance of these organizations. In this, New-York challenges our admiration and emulation. We are endeavoring to glean some of that knowledge, which is said to be power, from the wisdom and experience of the rest of the world. There are, however, too few copies of *The Cultivator*, and of our own *Ohio Cultivator*, circulating among us.

It is hard to convince some of our sturdy yeomanry, that these periodicals deserve as much attention as the light and fashionable literature, which, when exclusively read, unfits our sons for the plow, and our daughters for the homely comforts and duties of the farmer's fireside. Yet, on the whole, we are making some advance in knowledge, skill and enterprise; we have but little of that weak and foolish pride in this community, which regards agriculture and the mechanic arts as degrading; most of our people regard honest industry as the true source and emblem of honor. DARWIN E. GARDNER. *Marietta, Ohio, Nov. 28, 1848.*

#### Northern Corn in Mississippi.

The corn I obtained from New-York, I planted, and upon my word I do not think one ear in 25 was sound enough to gather; I cannot understand it. It matured much earlier than our Southern corn; did not grow over 6 to 8 feet high the highest, and had, I should think, generally 2 ears to a stalk. I had it planted so thick that some friends asked me if it was a variety of sugar cane. Rows were laid off 3 feet distant, as accurately as we could; 4 grains were dropped about every 18 to 24 inches, guessed at, though I dropped the most of it, myself; plowed once and hoed twice, and the only clean piece of land I have. The land was rich, well plowed, and corn covered with the hoe.

I did not pull up a stalk, nor take off a sucker; sometimes only one grain vegetated, sometimes 2, 3 and 4 did, and I might say the average was 3 stalks. I counted 8 good ears in one hill, and intending at the time to notice particularly when gathered, I would not affirm, that there were many with 8 ears, but if there had been any stalks without ears, I know I should have noticed them, especially as some one or more friends went through the patch after out of milk, noticing as to firing of the blades. I assure you, the blades began to dry up at the ends, sometimes one part of the stalk and sometimes an other—not a fired blade did I see.

I had some Northern yellow corn, which had been planted in Mississippi a few years; it was intended to have been 3 by 1, but I lost my first planting by letting the corn lie too long in strong saltpetre brine, and when planting the second time I had not enough seed to sow it in drills thick enough, and it was very badly injured by the weevil, and much never vegetated. The consequence was, I had a bad stand. Upon the top of this, a storm blew it down very badly, the stalk being very small. I did not measure the land, as the experiment was not fair. I therefore guessed at it, and think I gathered 50 bushels from each of 2 acres, whereas my crop that adjoined, no interval, produced 35. I showed this piece of corn to several, and defied



them to show any difference, as to firing or less yield of ears, than in the other corn, planted 4 by 18 to 20 inches. I had manured the land, plowed with two horses, subsoiled with two, harrowed, scattered more manure and plowed it in lightly, harrowed level and marked out rows with a bull-tongue plow, dropped seed about, or over half bushel per acre, and covered with the harrow. The bull-tongue was run round when just up, scraped out with hoe, the sweep was used twice I think, and the hoe once more, but the last hoeing and sweeping was only done because it was a part of the field and the hands went through the whole. I believe that upon the same quality of land, same manuring, same corn, same season, and similar culture, that we can make as much corn in lat. 32°, as you can, or anybody else, anywhere else. I may err of course, but ridicule, nor assertion of all scratching experiments will not change me in my opinion. M. W. PHILIPS. *Edwards, Miss. Nov. 10, 1848.*

#### On the Culture of Sunflowers.

EDITORS CULTIVATOR—In your October number are some inquiries on the culture of sunflowers. I have formerly raised them in quantities of a few bushels, annually, though without any very accurately conducted experiments. In the choice of soil, mode of planting, (as to depth, distance, number of spires in the hill,) and cultivation, I treat them exactly as I do corn. In an ordinary soil and season, the heads will measure from six to ten inches in diameter, though sometimes they will reach fourteen.

As soon as some of the ripest heads begin to shell out, I commence gathering, by cutting off the heads short with a knife, dropping them into a basket. A few of the greenest ones must be left for a second gathering. If they are well ripened, and the weather be dry when they are gathered, they should be shelled at once. This is done by holding the head in one hand, while with a coarse curry-comb you shell them out with the other. If you attempt to thresh them with a flail, a portion of nearly every head will prove stubborn, and many of the seeds will be broken. The heads are so very fleshy, and mould so readily, that it is very difficult to dry them in the interval between gathering and shelling. After shelling, spread and dry them partially; then winnow, and then dry thoroughly.

All sorts of domestic animals are fond of them after a little use, while in a family of nut-loving children, they are scarcely less acceptable than beech and hazle nuts, especially when they are large and well-ripened. I can state nothing of their yield per acre, but should think them not inferior to corn, under similar circumstances.

After the seed is gathered, pull up the hills, let them dry a few days, until the earth will shake from the roots freely; then stack and dry for oven-wood, as the stalks are too woody and stubborn to decay readily, and plow into the soil. Plant only the single-headed variety, as it will require much more labor to shell the many-headed, while the yield of seed is no larger.

I know nothing of the best method of hulling, preparatory to bruising the kernels for oil. I would suggest, however, that the ordinary cast-iron bark mill, used by tanners, would probably hull them safely, as the seed, when thoroughly dried, shrinks greatly in the hull, and might probably open without breaking the kernel. C. E. G. *Utica, Nov., 1848.*

NOTE.—There is one fact that I have not seen noticed. I have often found the sunflower covered quite thickly, very late in the season of vegetation, with the yellow-striped cucumber bug lodged on the lower side of the head. Whether they were seeking food, or a place of deposit for their eggs, I could not determine. I have not observed that they injure it while young.

#### Effect of Drainage.

I have a place on the Hudson river, through which a brook runs, which, in various ways, is the greatest ornament of the grounds. The brook takes its rise chiefly in a swamp, about three-fourths of a mile from the river, containing about one hundred and fifty acres, surrounded nearly on all sides by high hills, from springs in which, I suppose, the water in the brook is mainly supplied. At its outlet, there is a descent probably of thirty or forty feet, in a distance of ten or fifteen rods, so that the swamp can be easily drained, by cutting a deep ditch around it, and by this means bring into cultivation, as good a piece of land, as there is in the county—which at present, is worth little or nothing. I own a part of this swamp, but have been thus far deterred from taking any step to have it drained, from a fear that it might reduce the quantity of water in the brook—a result, for which any increased value of my portion of the swamp, would be no compensation. Whether such would be the result, or whether on the contrary, the quantity of water in the brook might not be increased, by confining that of the swamp to the ditch, and thus diminish the surface exposed to evaporation, is what I have no means of deciding by any experience of my own, or that of persons in my neighborhood.

The object of this communication is, to obtain such information as will guide me in this matter. HENRY SHELDON. *New-York, Nov. 13, 1848.*

[We do not think the drainage of the swamp would tend to reduce the quantity of water in the brook; on the contrary, the drains, if directed into the channel, would probably throw into it a greater quantity.—EDS.]

#### Deep and Subsoil Plowing.

On page 334 of the last volume of *The Cultivator*, I find an article on subsoil plowing, by JOHN MALLORY. I have never met with any thing that in general so completely harmonises with my own views on that subject. I think so well of the piece, that I should be glad if it could find its way into many other publications. There is no subject that could be presented to the farmer of greater importance. I speak not from theory alone, but from practice. I think the two first paragraphs of the article ought to stand as a frontispiece to every agricultural work.

Permit me to give a little of my own experience, and in that I shall be obliged to differ with Mr. Mallory as to time. He speaks of having subsoiled in June an ind May, and recommends spring or fall or any time in summer. Here I disagree with him, especially in regard to such land as he speaks of—*swale*. Where the climate will permit, the month of December is the proper time, or in other words before the frost sets in, and if the land is naturally inclined to be wet, the wetter when plowed the better. The plowing ought to be done with team strong enough to turn up from twelve to fourteen inches. The first grand agent is the frost, which will entirely change the character of the soil; it will become pervious to air and moisture; the subsoil will become mingled with the top-soil, and that which was barren will become fruitful.

Now we perfectly agree, that the interest of the farmer requires that the soil be made deeper. Mr. Mallory's plan is to do it in summer, with two plows, leaving the subsoil broken up, but still below the surface-soil. This may answer where the land has a larger proportion of sand or gravel; but where the subsoil is a stiff blue, or red clay—sometimes a potter's clay—impervious to water, it will be inclined to run together, not having been removed from its former position, or mixed with the top-soil; and if it was thrown up in summer, the

sun's rays, on a moist, stiff subsoil, harden it, and render it unfit for the roots of plants.

Remember I am speaking of a stiff clay, or wet meadow ground. My plan is to plow late in the fall, with a large plow, when the ground is wet, twelve inches deep, and throw the subsoil on the top as much as possible. It may freeze or thaw two or three times, in the course of the winter. In the spring, that which before looked as if it was very unsuitable for the growth of plants, is now changed, crumbling all to pieces, and readily mingling with the top-soil. Here, you have new land again, and as soon as it is dry, you may prepare it for whatever crop you think proper. If your object is to improve the land, leave it for rye, in August, or wheat, in September. Be sure never to work it when very wet, in summer. Harrow in April, plow in May, harrow in June, and again before sowing. Put on eight quarts of timothy to the acre in the fall, and the same quantity of clover in the spring. Again, I say, if you want to improve the soil, have a good coat of grass to turn down the next time.

In December, 1847, I plowed about eight acres, from eleven to twelve inches deep, part of which had a dressing of sand and lime. It was planted to corn. We have just done taking it in. It made twelve barrels to the acre, which is at least a fourth more than any field in the neighborhood, worked in the common way, where the plowing is done about six inches deep.

I should be decidedly in favor of making the time of plowing late in the fall, or just before frost sets in, as this will apply to different climates, and, as I said before, the wetter the better—the work to be done at one plowing, which can only be done in this part of the country when the ground is wet. We cannot plow twelve inches at any other time, and, besides, we are opposed to plowing while the ground is wet in summer.

I was so pleased with the article before alluded to, that I could not refrain from noticing it, and if any hint has been given that will tend to illustrate the subject, I shall be gratified. WM. TODD. *Ulica Mills, Frederick county, Md.*

#### Comparative Value of Crops.

We have received from JOHN W. PROCTOR, Esq. the report of the committee of which he was chairman, appointed by the Essex County (Mass.) Agricultural Society, to consider the "comparative value of crops as food for cattle." From the want of actual data, the remarks of the committee are given rather as suggestions, than as the embodiment of ascertained results. The subject is one of very great importance, and any observations tending to elicit facts in regard to it, must be useful.

We give the following remarks from the report in regard to the comparative value of beets and carrots. As to the production of milk from the sugar beet, we found in a trial of them, several years since, with three cows, that though the quantity of milk was as great as when the cows were fed with the same quantity of potatoes, the amount of *butter* obtained was considerably less. The beets did not impart richness to the milk:

"Carrots and beets are cultivated to some extent to help out the feed of our animals. Is there any one of our farmers who can answer with confidence, which of these is most worthy of cultivation? Satisfactory experiments to determine this would be of great value. We have used them both, to some extent, and will state such impressions as have arisen from this use. We have found the *sugar beet* one of the very best vegetables for the production of milk; far superior to the *carrot*—which is thought by some to be the very best of feed for milk cows. We have found the carrot

better for fattening than for increasing the milk of animals. We speak of the sugar beet, in preference to the blood beet, because it grows more abundantly. There are other considerations to be taken into view, in determining which of these vegetables is most worthy of cultivation, as well as the effect on the animals fed by them. We have found the carrot to yield the most, and to leave the land in the best condition, especially for the succeeding crop. Almost all other crops will grow well after the carrot; few will grow well after the beet. The carrot will grow well successively, year after year; the beet will not. The carrot requires less manure than the beet. What kind of crop, therefore, it will be most judicious to plant, will depend upon the combined consideration of the quality of the article grown; the labor and expense of growing; and the contemplated future use of the land. In our remarks upon the comparative cultivation of the beet and carrot, we do not intend to speak with that confidence, which should be a rule for others; all we intend is, to induce others, if possible, to make such observations, as will relieve them from the uncertainty under which we labor."

The report gives the following judicious remarks in regard to feeding stock: "Our impressions are, that a mixture of feed is preferable to any one kind exclusively. English hay should be the basis for winter, and Indian corn or meal the first accompaniment. Vegetables may be advantageously used, when combined with Indian meal. No stock can be fed, in the most successful manner, without a fair portion of this indispensable ingredient. It is to the animal, what steam power is to the traveller, the most certain means of going ahead. But whatever may be the kind of food used for the feeding of cattle, of this we feel confident, that it should not be sparingly used. Feed full, or not at all, is our motto. It is the worst possible economy to scrimp the feed of cattle, or to attempt to impose upon them a kind of food of ordinary or mean quality. How much time is annually wasted in gathering in the coarser grasses from the meadows, and forcing them down the gullets of animals, when their knees have hardly strength sufficient to support their emaciated bodies. If such kind of feed is to be used at all, it should be chopped and mixed with something nutritive, so that the animal may strengthen and thrive thereby. He that withholds from his beasts any portion of a full and generous feed, whatever may be the use he contemplates to make of them, in the same proportion diminishes his own income."

#### Farming and Fishing on Long Island.

My farm lies on the east end of Long Island, in the town of Southold, Suffolk county. It consists of eighty acres, ten of which are salt meadow, the residue good tillable land. We get from 100 to 200 bushels of potatoes, or 50 bushels of corn per acre. After these crops are off, in the fall, we usually sow wheat with timothy and clover. Wheat yielded last harvest, 28 to 35 bushels per acre. We likewise raise large quantities of Russia turneps, [*ruta-baga?*] which are sent to the New-York market, and fetch from 25 to 50 cents per bushel. They yield from 300 to 600 bushels per acre.

Last year I had six acres in potatoes, six in corn, six in wheat, two in rye, three and a half in oats, one and a half in turneps. I raised 170 bushels of wheat, 30 of rye, 150 of oats, 300 of corn, 850 of potatoes, 300 of turneps. I cut 20 tons of upland hay, and 10 tons of salt meadow. I have kept six cows, one yoke of working oxen, eight yearlings, four calves, three horses, one yearling colt, and twelve sheep. I sold a yoke of oxen in June, for \$154. I fattened one yoke o.



oxen, and one cow, five old hogs and four shoats—raised in all twenty-nine pigs.

The farm is bounded on the south by a small bay, where there is an abundance of sea-weed, fish, eels, clams, &c. There were taken in this bay, in a few days last season, nearly one hundred thousand poggies, which were sent to New-York, on the Long Island railroad, and brought over one thousand dollars. We likewise take great quantities of white fish, which we use mostly for manure. There have been taken in our harbor, in the months of May and June, over eight millions of these, in shoals of from one hundred to forty thousand at a draught. Our seines are from 150 to 250 rods long. They are drawn with horses, around a capstan. We generally spread the fish among the corn and potatoes, at the rate of ten to twelve thousand per acre. T. V. TUTHILL.

#### Experiment with Muck.

EDITORS CULTIVATOR—I have made some experiments the past season to test the value of muck as a manure, and am satisfied that four loads of muck are of as much value as three loads of barn-yard manure. I drew the muck from the swamp, as I had opportunity during the winter, and put it in large heaps in the field—two loads of muck to one of manure, and planted to corn. The yield was about 50 bushels shelled corn per acre. The soil was sandy, the subsoil in part lime rock, slate rock, and gravel. On a part of the field I put nothing but muck; there was no perceptible difference in the corn during the summer; but on husking the corn, the ears were better filled out on the part where there was nothing but muck, occasioned, no doubt, by the muck keeping the ground more moist, as the season has been *very dry*. I think that at least one-third of the crop is to be attributed to the muck. On the part of the field where I put no manure, I put about a quarter more muck than I did where I put muck and manure. In cultivating corn, I use nothing but the cultivator, and I go through the corn three times, both ways, each time pull out all the weeds from the hills. I would not thank a man to make a hill around corn for me.

PRECAUTION.—Any one that tends a threshing machine, ought to take a fine sponge and fit it to the nose and mouth. Moisten it, and let a string pass from each side of it to the back part of the head, and tie them together. A man thus prepared can work for hours in a perfect "smudder," without experiencing those disagreeable sensations that are always felt after working in the dust, without such precaution. I have been in the habit of thus using a sponge for the last twelve months, when I tend threshing machine. I would rather give one dollar per day, than tend a machine without it. I first got the idea from the Cultivator. HENRY KEELER. So. Salem, N. Y., Dec., 1848.

#### On the Culture of the Potato.

EDS. CULTIVATOR—It has long been a prevalent opinion with our farmers, that seed potatoes should be selected from the largest and best. But a gentleman of my acquaintance, the owner of a large farm in the county of Worcester, in the spring of 1847, found his stock of large potatoes completely exhausted, and from the general scarcity, could not renew his supply. He then determined, from necessity, to plant his fields with small ones, varying in size from a marble to a small pullet's egg, placing two or three, without cutting, in each hill. The result was an unusually fine crop, in size, quantity and quality.

In the spring of 1848, he repeated the experiment, so far as to plant alternate rows of small ones and large ones, cut into four or five pieces. I was pre-

sent when he was harvesting the crop, in the early part of October, and it was evident that the produce of the small potatoes exceeded that of the large ones. Should further experiment confirm the fact, that the small are of greater, or even of equal value for seed, it will be of some importance to farmers in this section, for the summer drouth frequently causes a withering of the potato vines by the middle of August, so that there is no subsequent growth of the roots, giving a large proportion of small ones; these have been claimed by the hogs.

Prior to the "potato rot," large quantities were imported from Maine, and the British Provinces, and with our own produce, established a price of 20a33 cts. per bushel. For three years past, the importations have been extremely small, and from the loss by rot, the price has been 80 cts. a \$1.50 per bushel, an expensive article of food for hogs. M. B. Beverly, Mass., December, 1848.

[Our correspondent relates an experiment in raising potatoes from *sprouts*. It may not be generally known that potatoes can be readily propagated in this way, if care is taken not to mutilate the sprout in planting.]

#### The Mount Airy Agricultural Institute.

We make the following extracts from a letter recently received from JOHN WILKINSON, Esq. the principal of this institution, from which it will be seen that he is going on prosperously with the good work he has undertaken: He says:

"We have now thirteen regular students, besides those from the village who attend the lectures. A more amiable, virtuous, studious and industrious class of young men never were collected—among them one sent by the Brazilian Government, a liberally educated and very intelligent and worthy gentleman, who designs to return to his own country, to found an Agricultural College there. The prospect is that we shall have as many as we can accommodate during the next summer session.

"My class all participate in every branch of farm labor, and are each required to lecture on mathematics and such of the natural sciences as they are pursuing. They are taken into the laboratory, and assist in making and repairing apparatus and preparing tests and analyses, and in short every manipulation of the scientific department. About four hours per day are spent in the practical operations of the farm; the balance in the literary department. Two or three evenings of each week are spent in the discussion of the practical subjects of the farm, in which the students all participate, and they are very interesting, as there is a great strife to excel in the discussions.

"The winter has been remarkably open; we have been plowing for the past two weeks for the spring crops. The fall has been very dry; springs and streams were never known so low at this season of the year. I have grown, this year, about 1200 bushels of Potatoes, and 800 of carrots, all sound and good."

#### Wild Lands of Kentucky.

In the November number of the Cultivator, is a piece by B. headed "Kentucky Wild lands" in which the advantages of purchasing and improving these lands, "rather than go on to the prairies of the wide west," are fully and justly set forth. In our section of the state, from three to four hundred miles by water, below those recommended by B. are large bodies of unimproved lands, near the Ohio and Green rivers, which can be purchased at very reduced prices, and made to yield by judicious management, large profits. The larger portion of our lands are level or undulating, and all

capable of being brought into cultivation, much of it admirably adapted to meadows, and there is no crop cultivated in the west, requiring so little labour, that has, and probably will continue to yield as good a profit as hay, baled and shipped to the South. Other portions of our land, are more broken and adapted to grazing, and the cultivation of the grape. Our location is about  $37\frac{1}{2}$  degrees of North latitude; and the principal crops now cultivated for market, corn and tobacco. We are also so low down upon the Ohio river, as to possess great advantages, over those living on the upper Ohio, in getting our produce to market, during a low stage of water. I think our lands are peculiarly adapted to an industrious German population, possessing some means for purchasing and improving them, yet such appears to be their aversion to settling in a slave state, (if B. and many others, are correct in their belief, this cause of aversion will soon cease in Kentucky) that they buy lands in Indiana, from \$6. to \$10. per acre, which are not better located, and frequently of very inferior quality, to those that could be purchased on our side of the river, at from \$2. to \$4. per acre. There are the same advantages here, to make the timber pay for the land, as those in the upper part of the state, as mentioned by B. A tract of about 4000 acres of land, fronting nearly two miles on Green river, about two miles above Lock and Dam No. 1 where a grist and two saw mills are located, 10 miles above the mouth of the river, and 15 or 20 miles above Evansville, a very flourishing town in Indiana, rapidly increasing in population and located at the termination of the Erie and Wabash canal, upon the Ohio river, can now be purchased, if taken altogether, at \$2 per acre; the tract is unbroken and can all be improved and cultivated. Many other tracts can be bought on as favorable terms. There is a vast field of coale under all this region of country, which is seen near the surface in many points among the hills on Green river and other parts of the country, and which, I should think, is worth the attention of capitalists. A. Henderson, Ky. Dec. 1848.

#### To Build a Rat-proof Granary.

EDS. CULTIVATOR.—Having noticed in one of the nos. of your Cultivator, an inquiry for a "Rat-proof Granary," I offer the following cheap, simple and effectual plan, which you can place before your readers, though I fear I am too late to benefit my Brother Farmer who applied to you; but he is not the only one who is intruded upon by these unwelcome visitors, therefore I feel myself called upon to save all the corn I can, for those who have to build cribs:—Take locust posts and place them in the ground as deep as you may wish; saw the tops off smooth, and build on your crib, 3 or  $3\frac{1}{2}$  feet above the ground; and then around the posts, which must be barked smooth, nail tin; and when the rats climb up to it they will tumble down, finding no foot hold. The building must not be attached to any other building, or to any fence. A YOUNG FARMER. Willow Bottom, Md., Dec. 2, 1848.

#### Benefit of Example.

Being among the number "who have gone to farming from the shop, store, offices, &c.," I have been much interested in the details of farming by experienced and successful farmers, that have appeared in the last volume of the "Cultivator,"—those relative to the author's own operations, and the editorial descriptions of farms and farming by men in various parts of the country. Very few of us are at leisure to visit the different farms at the season of active operations, and must, but for those descriptions, be satisfied with such examples as appear around us, many of which are cer-

tainly not the most perfect patterns of good farming. I think we are most apt to adopt the example that meets us at the moment when we wish to put it in practice, if it is not palpably wrong—not recalling, in the hurry of business, the many better ones that we have met with before. Here is one of the advantages of the "Cultivator,"—a text book always at hand; and any one may take time to look at the index and find each article that has a bearing upon the business he is engaged in, from which, together with his neighbor's operations, he may select the best way. Theory won't answer then; it is practical details and results that tell. Theory is let alone to talk about at leisure.

The influence of one good farmer among his immediate neighbors, is greater than is generally supposed. I am led to think so from what came under my observation when a boy. My father, (whom I always set down as a good farmer,) purchased a farm in a neighborhood where the farms had descended from father to son, and the modus operandi was among the "appurtenances" bequeathed. Each innovation of my father on old customs, was hailed with a sneer and a—"guess he will get sick of that." The muck was "cold stuff," the ashes would "kill the corn," the plaster "ruin the land," the cultivator was "not half so good as the plow," the spring-tooth rake "spoiled the hay, and would be torn all to pieces before haying was over." When asked to take an agricultural paper, the reply was,— "We know more farming than we can do now." But they were men who looked to the interest of their pockets, and could not fail to see that my father's crops were ahead of theirs, with less advantages for manure, and that he was ahead of them in his work with less help. The consequence was, one after another might be seen starting the team for the muck-swamp, but stealthily, as a dog bent on mischief. The cultivator, the horse rake, &c., were purchased and brought home in the night, at first, that the neighbors might not see them. One or more agricultural papers are now taken in each family. They have found that although they knew before, "more farming than they could do," much of it may be unlearned, and what needs to be done, may be done quicker and better by adopting the improvements of the day.

I left home while young, and have not my father's example fresh before me; and, as I before said, examples of good farming are not as frequent as they might be; I, therefore, on receipt of my "Cultivator," seek first and most anxiously for such examples from you and your able correspondents. I trust the interests of farmers, young in experience, like myself, will not be forgotten in the forthcoming volume. O. W. EDSON. Chester, Vt., Dec. 8, 1848.

#### Judicious Improvement.

The Report of the Committee on Farms for the Hartford County (Ct.) Ag. Society, 1848, gives the following sketch of the farm of MARVIN SEXTON, of Simsbury, to which the first premium of the Society was awarded. "Mr. Sexton purchased this ground about fifteen years since, principally on a credit, and with a large debt upon him, which he has gradually liquidated. He has with good judgment and untiring industry, accomplished in the way of improvements what is truly wonderful, and indeed, had not some of our committee well known the facts, what would be incredible. When Mr. Sexton went on to this land, several of the lots were so covered with stone that it was exceedingly difficult to cultivate them; other portions were swampy, covered with bushes and bogs. The stones have been drawn off and made into substantial wall around lots of various sizes, from four to ten acres—the swamps thoroughly drained with deep ditches, the bushes cut, the bogs cut up, piled and



burned; in short, much of the land had been reclaimed and improved in a manner that would lead one to suspect that the owner must have had bank stock to have drawn upon to pay his workmen. We found his barns well filled with good hay, and his teams and young cattle in good condition. Mr. Sexton has built 533 rods of wall, and put in new posts and rails for 100 rods more. He has also made over 100 rods new rail fence, besides rebuilding 220 rods worm fence. The fences, and indeed most of the other improvements, have been made within the last five years."

## Domestic Economy, Recipes, &c.

### Cookery—Boiled Meats, &c.

We should be greatly obliged if some of our Farmers' Wives or Daughters, would supply us with matter for this department of our paper. For want of something from them, we copy the following, from Miss BEECHER's excellent "Domestic Receipt Book:"

**TO BOIL A TURKEY.**—Make a stuffing for the craw, of chopped bread and butter, cream, oysters, and the yolks of eggs. Sew it in, and dredge flour over the turkey, and put it to boil in cold water, with a spoonful of salt in it, and enough water to cover it well. Let it simmer for two hours and a half, or if small, less time. Skim it while boiling. It looks nicer if wrapped in a cloth dredged with flour.

Serve it with drawn butter, in which are put some oysters.

**TO BOIL CORNED BEEF.**—Put the Beef in water enough to cover it, and let it heat slowly, and boil slowly, and be careful to take off the grease. Many think it much improved by boiling potatoes, turnips, and cabbage with it. In this case the vegetables must be peeled, and *all* the grease carefully skimmed as fast as it rises. Allow about twenty minutes of boiling for each pound of meat.

**TO COOK A HAM (VERY FINE.)**—Boil a common-sized ham four or five hours, then skin the whole and fit it for the table; then set it in an oven for half an hour, then cover it thickly with pounded rusk or bread crumbs, and set it back for half an hour.

Boiled ham is always improved by setting it into an oven for near an hour, till much of the fat fries out, and this also makes it more tender. Save the fat for frying meat.

**BOLOGNA SAUSAGES.**—Take equal portions of veal, pork, and ham, chop them fine, season with sweet herbs and pepper, put them in cases, boil them till tender, and then dry them.

**EASTERN BROWN BREAD.**—One quart of rye.

Two quarts of Indian meal; if fresh and sweet, do not scald it; if not, scald it.

Half a tea-cup of molasses.

Two teaspoonfuls of salt.

One teaspoonful of saleratus.

A tea-cup of home-brewed yeast, or half as much distillery yeast.

Make it as stiff as can be stirred with a spoon with warm water. Let it rise from night till morning. Then put it in a large deep pan, and smooth the top with the hand dipped in cold water, and let it stand a while. Bake five or six hours. If put in late in the day, let it remain all night in the oven.

**BAKED BEANS.**—Pick over the beans the night before, and put them in warm water to soak, where they will be kept warm all night. Next morning pour off the water, and pour on boiling water, and let them stand and simmer till the beans are soft, and putting in with them a nice piece of pork, the skin gashed. Put them

into the deep dish in which they are to bake, having water just enough to cover them. Bury the pork in the middle, so that the top will be even with the surface. All the garden beans are better for baking than the common field bean. They must bake in a moderately hot oven from two to three hours.

The best variety for baking is the small white Lima; next to this, the white Cranberry bean.

## New-York State Agricultural Society.

ANNUAL MEETING at the Capitol, on the 3rd Wednesday, (17th) January, 1849.

The following committees appointed for the January meeting:

**MANAGEMENT OF FARMS**—Hon. A. Van Bergen, Cossackie; Hon. Wm. Buel, Rochester; Hon. J. S. Gould, Hudson.

**EXPERIMENTS AND ESSAYS**—Asa Fitch, M. D., Salem; Hon. Geo. Geddes, Onondaga; Hon. S. Cheever, Saratoga.

**CHEESE AND BUTTER DAIRIES**—B. P. Johnson, Albany; Hon. H. C. Tuthill, Cayuga; A. Doubleday, M. D., Binghamton.

**BUTTER AND CHEESE**—Joseph Alleyn, Rochester; Amos Briggs, Schaghticoke, and Joseph Cary, Albany.

**DRAINING**—John Delafield, Oaklands; Roswell Reed, Cossackie; B. B. Kirtland, Greenbush.

**WOOL AND WOOL DEPOTS**—Hon. J. P. Beekman, Kinderhook; S. N. Dexter, Whitesboro; Hon. D. S. Curtis, Canaan.

**FRUIT**—E. Emmons, Albany; D. Thomas, Greatfield; H. Wendell, Albany; J. W. Bissell, Rochester; C. S. Wilson, Utica.

For the best new seedling variety of winter apples, of decidedly superior quality and valuable for exportation; one dozen specimens to be exhibited; together with a history of its origin; a description of the growth, character and habits of the tree, and the growing of the fruit—such fruit to be adjudged by the committee as of the first character for orchard purposes, diploma and \$10. For the second best do., \$5.

The above new seedling variety to be sent to B. P. JOHNSON, Secretary, Agricultural Rooms, Albany, before the 15th of January, 1849, for examination.

**WHEAT AND INDIAN CORN**—Charles Lee, Penn-Yan; Hon. Tracy Pardee, Batavia; Hon. John I. Brinkerhoff, Cayuga.

**BARLEY, RYE, OATS, PEAS AND BEANS**—Hon. O. Hungerford, Watertown; J. W. Ball, Exeter; W. A. McCulloch, Greenbush.

**POTATOES AND ROOT CROPS**—A. Osborn, Watervliet; Robert Harper, Albany; J. W. Haydock, Greenbush.

**CORN FODDER, HOPS, CLOVER AND TIMOTHY SEED**—Col. E. Kirby, Brownville; Hon. Benj. Enos, DeRuyter; Hon. Henry Wager, Oneida.

**ARRANGEMENTS FOR POMOLOGICAL EXHIBITION**—H. Wendell, M. D., J. McD. McIntyre, and Jas. Wilson, Albany.

**ARRANGEMENTS FOR WEEKLY MEETINGS DURING THE WINTER**—Sanford Howard, J. McD. McIntyre and B. P. Johnson, Albany.

Prof. E. EMMONS, M. D., is expected to deliver an address on the first evening of the annual meeting. Notice will be given of the subject of the address.

B. P. JOHNSON, Sec'y.

Agricultural Rooms, Dec. 14, 1848.

**ARDENT SPIRIT FROM MILK.**—In Tartary, the milk of the mare is converted into a liquor called *koumiss*, which is said to be agreeable to the taste. From this liquor a spirit is obtained by distillation, called *rack* or *racky*.

## Notes for the Month.

### To our Patrons and Friends.

WITH "the compliments of the season" to all our friends, from the "frozen north" to the "sunny south," we have the pleasure of presenting them with the initial number of our new volume,—a number which we intend shall be at least equalled by all the future nos. of the volume, which it is our intention to make, in every respect, superior to any we have heretofore issued; and which we doubt not, will meet the full anticipations of all who shall favor us with their subscriptions. We commence the year, with new and beautiful type, and with an increased number, and a better style of engravings; and our engraver, Mr. FORBES, promises us that the engravings for the next year shall not be excelled by those of any periodical in the country. Its table of contents we think also unusually rich and varied, and admirably adapted to interest, to instruct, and to elevate the character of our rural population; and, take it all in all,—the quality of the paper,—the beauty of its mechanical execution,—the style and number of its illustrations, and the quality and quantity of the reading furnished, it is believed that it will be found such as to deserve a hearty welcome from all its readers, and worthy a place in every farmer's family. We therefore bespeak for it the kind offices of all our friends. It will be remembered that all subscriptions are discontinued at the end of each year, and that we are dependant upon the voluntary efforts of those who so kindly act as agents, for their renewal. Having suffered severely by the late fire, by which our office was destroyed, we shall be particularly grateful for any extra efforts which our friends may be able to make to give *The Cultivator* an increased circulation the present year.

COMMUNICATIONS have been received, since our last, from T. V. Tuthill, Henry Keeler, H. P. Byram, A. F. Holbrook, H., *Agricola*, *A Farmer's Wife*, Wm. Todd, H. C. W., Darwin E. Gardner, M. W. H., M. B., P. Dubois, *A Subscriber*, *A Young Farmer*, O. W. Edson, H. S., S. B. Buckley, *A Plain Farmer*, J. R., B., W. Halsey.

We received, too late for this month, a very interesting communication from our friend T. HART HYATT, Esq., United States Consul at Tangiers, on the mate, soil, productions, &c., of the empire of Morocco, which we shall publish next month.

BOOKS, PAMPHLETS, &c., have been received, since our last, as follows: Analysis of the Cotton Plant and Seed, with Suggestions as to Manures, &c. By Thomas J. Summer. From Col. A. G. SUMMER.—Scientific Agriculture, or the Elements of Chemistry, Geology, Botany and Meteorology, applied to Practical Agriculture. By M. M. RODGERS, M. D. Rochester: E. Darrow. From the Publisher.—Transactions Penn. Hort. Society.—Catalogue of the Officers and Students of Yale College, from Prof. NORTON.

PLANTS AND FRUIT TREES.—We failed to acknowledge, as we should have done, in our last no., a box of flowering plants, for our garden, from our friend DAVID THOMAS, Greatfield; and also a package of fruit trees of new and rare kinds, from Messrs. ELWAN-

GER & BARRY, Mount Hope Nurseries, Rochester. They will please accept our thanks.

We will endeavor to make room soon, for the papers enclosed to us by our friend J. P.

E. C. J.—Answers to your inquiries next month.

NEW CORRESPONDENTS.—We are happy in having it in our power, to give the very excellent papers of *AGRICOLA*, H. C. W., and *A FARMER'S WIFE*, in this number. We hope they will favor us with frequent contributions to our pages. *AGRICOLA* we know *practices* what he teaches—H. C. W. though unknown to us, must, we are confident, be a good farmer; as to *A FARMER'S WIFE*, who furnishes us with one of the best plans we have met with, for a "working-woman's cottage,"—she undoubtedly has "a local habitation and a name," with which we should be happy to be made acquainted.

The attention of all who are disposed to aid in procuring subscribers to "*THE CULTIVATOR*," is invited to the LIST OF PREMIUMS, given on last page. We hope there will be a spirited competition.

SCHOOL OF APPLIED CHEMISTRY IN YALE COLLEGE.—We would call particular attention to the advertisement of this school, which will be found in the present number. This department has been in operation more than a year, and its success has been greater, in all respects than its most sanguine friends anticipated. In regard to the course of instruction and the general management of the school, we have heard but one expression, and that of entire approbation. It is unnecessary for us to speak of the talents of Professor NORTON, or his acquaintance with the scientific principles of agriculture; his character in these respects is already well known, and the valuable productions of his pen are familiar to many of our readers.

TILE MACHINE.—We are informed that JOHN DELA-FIELD, Esq., Oaklands Farm, near Geneva, expects soon to receive from England, one of the most approved tile machines, which will make from 8,000 to 10,000 draining tiles per day.

A pair of remarkably large yearling steers, twins, raised by Mr. HIRAM ACKLEY, of Hamilton, Madison county, lately passed through this city, having been purchased by Mr. F. A. WIER, of Walpole, N. H. They were calved 24th of March, 1847. We did not learn their weight, but we think they are as large as any we have ever seen of their age. They appear to be a cross of the Durham and common stock, are thrifty, and not large-boned for their size.

DE RUYTER INSTITUTE.—We are informed that an agricultural department has been added to this institution. It is under the charge of Mr. GURDON EVANS, Professor of Natural Sciences,—a gentleman who qualified himself for this station, under the instruction of Prof. NORTON. It is intended to afford farmers the opportunity of obtaining a thorough knowledge of those sciences connected with agriculture. The course for farmers commenced on the 13th of December, and will continue fourteen weeks. Each student spends two hours in each day in the chemical laboratory, where they are instructed in the modes of analysing soils, ashes, &c. A course of thirty lectures is to be given during the term, upon the relation of geology to agriculture, to include remarks on the rotation of crops, manures, draining lands, &c. To students who wish become thorough *agricultural chemists*, a complete course will be given, "beginning with a course of qualitative examinations, followed by a series of qualitative analyses of soils, ashes, minerals, mineral waters, gases, chemical substances," &c. Medical students who wish to acquire a practical knowledge of pharmacy, either before or after attending lectures, will be furnished the facilities for prosecuting the investigation of



medical substances, both analytically and synthetically, and at the same time they may pursue their studies under able practitioners in the neighborhood. From what we have learned of this institution, we are favorably impressed with its character, and the advantages it affords for giving instruction in the branches above mentioned.

**POTATO ROT.**—Mr. P. DUBOIS, of Tompkins county, writes us that he applied a dressing of lime to a part of his garden, and that potatoes planted on this part have not rotted, while those on adjoining land, not limed, have decayed very much. He thinks it was the lime which prevented the attack of the disease; but we have heard of similar trials in many instances in which no such effect was discernable.

**HEAVY OATS.**—At the late show at Saint Johns, New Brunswick, three samples of oats which were exhibited, weighed respectively 47 lbs., 46½ lbs. and 44 lbs. the bushel.

**SULLIVAN COUNTY AGRICULTURAL SOCIETY.**—The officers of this society for 1849, are LOTAN SMITH, President; C. S. WOODWARD, J. C. CURTIS, J. M. FOSTER, L. MOORE, G. G. DEWITT, J. C. VOORHES, D. PIERCE, SETH BROWN, A. NORRIS, H. MEAD, PLATT PELTON, Vice-Presidents; JOHN P. JONES, Cor. Secretary; JAS. H. FOSTER, Rec. Secretary; M. L. BUSHNELL, Treasurer.

**SYMPATHY BETWEEN A HORSE AND SHEEP.**—Many persons have doubtless seen a portrait of the celebrated race-horse Dungannon, accompanied by the figure of a sheep, the latter having on its side the initials, D. O'K. The following is the explanation of the picture: A drover being on his way with a flock of sheep for market, one of them became lame and unable to travel. The animal was put into a field where the horse above-mentioned was feeding. The sheep recovered, and a singular attachment soon took place between it and the horse. It is stated that such was the affection of Dungannon for the sheep, that, besides sporting with it in various ways, he would sometimes lift it in his teeth, with great tenderness, into the rick, where the groom deposited the fodder. The horse would, also, on all occasions, defend his new friend, and suffered no one to offer him the least molestation. Mr. O'Kelly, the owner of the horse, being made acquainted with these circumstances, bought the sheep of the farmer, marked the wool with his own initials, D. O'K., and left the two friends in peaceable possession of the enclosure.

**CATTLE IN THE SOUTH.**—Dr. Lee says, writing from Augusta, Ga., "common cows nowhere give more than from one to two quarts of milk at a milking. At present (10th June,) cattle are poor, and many have not shed their coats. Indeed, not one animal in a hundred has enough to eat. Short commons have dwarfed them down to about one-third the size of northern cattle."

**CLIMATE ON CORN.**—Isaac Flower, of Erie county, Ohio, speaking of the gradual change in varieties of northern corn when removed south, says, "From sixteen years acquaintance and cultivation, I am prepared to say that the white flint variety seems to bear no similarity to what it was sixteen years ago; it was then an eight-rowed flint corn; it is now some sixteen to twenty rows gourd-seed."

**CORN—THICK AND THIN PLANTING.**—We have long been satisfied that the more evenly the crop is distributed over the ground, the greater the product. One of the heaviest crops ever raised, consisted of a single stalk to every square foot. Hence drills are better than hills, both being equally well managed—and small and frequent hills, better than large remote ones. S. H. Reed of Bergen, Genesee Co. planted an acre

with hills, 3 feet 4 inches by a foot and a half. Another acre was planted 3 feet by 3 feet 4 inches—4 stalks to a hill in both cases. Both were hoed twice, and dressed with the cultivator four times. The product of the close acre was 90 bushels of shelled corn; the other, only 45 bushels. In many instances which have come under our observation, corn planted in drills has usually yielded one half more than in hills, both receiving judicious and equally good treatment.

**DEEP AND SHALLOW PLANTING.**—C. L. Shepherd, of Illinois, planted his corn-field shallow, or about an inch deep, except eight rows through the middle, which was planted two or three inches deep. The shallow corn came up first, and kept the lead during the whole season. The difference was discernable as far as the corn could be seen.

**PARSNIPS FOR HOGS.**—Parsnips appear to be nearly the only root, good for swine in an uncooked state. Turn a herd of swine into a field containing field beets, ruta bagas, carrots, and parsnips, and the question will very soon be settled which they like best and which consequently is best for them, the parsnips being wholly devoured before the others are touched.

**CHESTNUTS** have been planted near Chicago, according to the *Prairie Farmer*, and grown from seed in eight years, from 15 to 20 feet high, and already bearing considerable crops.

**GOOD RULE.**—The Editor of the *Prairie Farmer*, says he was taught when a boy to refrain from grumbling at two things. The one, is that which he cannot help—and the other, that which he can help.

**SALT FOR CATTLE.**—A correspondent of the Louisville Journal thinks salt of little use for cattle. He has conversed with stock raisers, and none have furnished him proof that it is of value. He salted a part of his stock regularly once a week, and withheld it for months from another portion, and was unable to discover any difference.

**IMPROVEMENT.**—The editor of the *Genesee Farmer* says he has seen a girl in a cotton mill, tend six power looms, weaving 1260 yards in a week, for which she was paid *five dollars*. In India, where labor-saving machinery is not introduced, a woman must labor 20 weeks to produce an equal amount of goods, and will receive 4 cents a day, or 24 a week, for her services.

**INCONSISTENCY.**—Dr. Lee asks the following very pointed question, which contains matter for a great deal of reflection for those who will reflect at all: "When will the cultivators of American soil instruct their representatives in Congress to vote one dollar to teach the arts of peace and the science of agriculture to the young men of the republic, where they now vote *thousands* to instruct them in the art of shedding human blood by violence, or the science of war?"

**ELDER BUSHES.**—The *Ohio Cultivator* says that the best way to exterminate elder bushes and briars, is to mow them closely to the ground two or three times during the summer; the roots will mostly die after the second year's practice of this remedy." Nurserymen who have occasion to cut down near the ground, stocks which are grafted, or have been budded, have noticed that when the buds or grafts fail after the sprouts have been rubbed off, that the stocks usually dwindle, and frequently die. Cherry trees (which do not sprout readily,) are easily killed in this way; peaches, with more difficulty. No doubt a similar treatment would destroy bushes and briars on the farm.

**CHEATING THE WORMS.**—S. Williams says that a farmer in Seneca county, N. Y. finding the worms destroying his newly planted crop of corn, planted again between the rows. The worms confined themselves to the first hills, and he harvested a heavy, full and even crop.

### Answers to Correspondents.

**PEAT ASHES.**—In reply to our correspondent at Smithfield, Va., in regard to the effects of peat or turf ashes, we observe, that such ashes generally prove useful for most crops. The peat is preferred by some in a charred state—or not entirely burnt to ashes. A writer in the Scottish Quarterly Journal of Agriculture, describes the effect of a mixture of charred peat and peat ashes. A fire was first kindled, and the peat piled around. The fire was kept in a smothered state in order to char the peat, but it sometimes broke out for a while, and made ashes. When the burning was stopped, the mass was about half charred peat and half ashes. The mixture was used as a dressing for ruta baga, at the rate of 200 bushels per acre, put into the drills. It was tried against good stable manure, that would cut like mould with the spade, which was applied at the rate of twenty tons to the acre, and put into the drills like the peat and ashes. Both lots were treated alike. The peaty mixture produced *forty* tons, and the stable manure *thirty* tons, per acre.

The peat and ashes, and the stable manure were also tried for peas, in a manner similar to that described as for turneps, and the rows where the peaty mixture was used, yielded as much as those treated with manure.

**MR. CRISPELL'S FARMING.**—"A SUBSCRIBER," Frederick, Md. The statement to which you refer was an extract from Mr. CRISPELL's account of his farm products, as given in the Transactions of the New-York State Ag. Society. The quantity of ground occupied by each crop, we do not find mentioned, but the following is given as the product per acre: viz., corn 70 bushels; oats, 71½; rye, 27; wheat, 12; potatoes, 120; hay, 2½ tons. We will endeavor to obtain from Mr. C. the information desired, in regard to the amount of grain and provender consumed on the farm by stock.

**CISTERN.**—H. S., Middlebury, Vt. The plan you propose, of drawing off the sediment, or impure water, from the bottom of the cistern, by means of a pipe and faucet, is new to us, but it looks as if it might answer the purpose. At any rate it will not cost much to try it—the experiment will be useful, from having ascertained a fact.

**SPAYING COWS.**—J. R., Utica, N. Y. We have no practical knowledge in regard to this matter. It is quite common in England and in some parts of this country, to spay *heifers* in order to hasten their fattening. We have heard of a few instances in which the operation has been performed on milch cows. The object in this case is to have them continue in milk, indefinitely, as to time. If any one can furnish any information on the subject, either as to the mode of performing the operation, or its particular advantage, in regard to *cows*, we should be glad to receive it.

**TRENCH PLOW.**—W. H., Trumansburg, N. Y. We do not know where this implement can be had. Since subsoil plows were introduced, trench plows have mostly gone out of use. They were usually made very strong, and without a mould board. Any plow that is strong and large may be made to answer the purpose of a trench plow by running it deep enough.

**MARES FOR BREEDING.**—A late English essay on the breeding and management of farm-horses, recommends that mares for breeding should be well-shaped in their different parts; gentle, but spirited; have a large, well-formed carcass; good middle; strong, sinewy limbs; not too high, (say 15½ hands;) broad, well-formed chest, which is of the greatest importance; neck not too long, but well set on; ears erect; free from natural blemishes of any kind; one color is to be pre-

ferred, with good action in all paces; head will elevated, which generally indicates spirit; and not too much hair on the legs. The proper age for breeding is neither too young nor too old—(say from five to fifteen,) which will impart vigor to the offspring.

**USE OF ROSES.**—A correspondent of a western paper, asks whether mankind would be most benefitted by an acre of roses or an acre of potatoes?

To which the editor replies by asking another question,—which is the most useful, the plow, or the razor?

### Prices of Agricultural Products.

New-York, December 14, 1848.

**FLOUR**—Genesee, per bbl., \$5.50a\$5.62½—Fancy brands \$5.75 a\$6.25.

**GRAIN**—Wheat, Genesee, per bush. \$1.20—Corn 58a62c—Rye 62 c.—Barley, 64a65c.—Oats, 32a36c

**BUTTER**—Best, per lb., 19a21c.—Western dairy, 15a18c.

**CHEESE**—per lb., 6½a7½c.

**BEEF**—Mess, per bbl., \$9.75 a \$11—Prime, \$5.75a\$6.

**PORK**—Mess, per bbl., \$12.50a\$12.62—Prime, \$9.37½—Dressed

Hogs, per lb., 5½a5½c.

**LARD**—per lb., 7½ c

**HAMS**—Smoked, per lb., 6½a9c.

**HEMP**—American dew-rotted, per ton, \$155a\$160.

**TOBACCO**—per lb., Kentucky, 3½a6c.

**COTTON**—Upland and Florida, per lb., 5½a6½—New Orleans and

Alabama, 5½a7½c.

**WOOL**—Prime or Saxon fleeces, washed, per lb.,..... 35a41c.

American full-blood fleeces,..... 31a33

“ half-blood,..... 26a27

“ one-fourth blood and common,..... 23a25

☞ The news by the last steamer had the effect to check operations in flour and corn. The demand for flour is chiefly for the Eastern trade, for which there is moderate inquiry.

### Annual Meeting N. Y. S. Ag. Society.

THE Annual Meeting of the N. Y. S. A. Society, will be held at Albany on the 3d Wednesday, (17th) of January, 1849.

Premiums will be awarded on Grain and Root crops, Butter, Cheese, Fruits, &c. Statements should be furnished the Secretary early in January. It is desired that there should be a full representation from the county Societies, as well as of the friends of Agriculture generally.

A *Pomological Exhibition* will be held at the rooms of the Society, and growers of fruit are respectfully requested to forward specimens to the Secretary, as early, if practicable, as the 15th of January.

Nov 1, 1848—2t.

B. P. JOHNSON,  
Secretary.

### Mobile Seed Store.

*Agricultural and Horticultural Manufacturers' Agents, for the sale of Plows, Straw Cutters, Corn Shellers, Harrows, Cultivators, Seed Planters, Water Rams, &c., &c.*

THE undersigned have been for many years devoted to the advancement of Agricultural, Horticultural, and other scientific pursuits, for which a taste is advancing in this State rapidly, and beyond any other period of its existence; and aware of the want of an Agent located in Mobile, in whose judgment in such affairs the citizens of this and the adjoining State and the proprietors can have confidence, and who would take a direct and personal interest in furthering the introduction of approved *Agricultural* and *Horticultural* implements, tools and machinery, we are induced to open an Agency in this city, devoted to these branches alone. From our knowledge of, and acquaintance with the *Planters of Alabama* and *Mississippi*, we are enabled to offer greater inducements and facilities to Patentees and inventors for the sale of their articles, than can be obtained elsewhere. We will open an exclusive

**AGRICULTURAL AGENCY WAREHOUSE IN MOBILE,**  
SUITED TO THE SOUTHERN PLANTER.

Inventors and Patentees are invited to a correspondence (post paid,) relating to Plows, Harrows, Rollers, Cultivators, Horse Powers, Grain and Rice Threshers, Hulling Machines, Fanning Mills, Cotton Gins, and all other articles useful to Planters and Agriculturists.

We will act as Agents for responsible Nurserymen and Horticulturists, on reasonable terms, and will give prompt attention to the receiving and forwarding goods to the interior of the State free of charge.

We will make prompt returns of all business confided to us.

☞ Agricultural Works received on commission.

Mobile, Sept. 1848.

S. B. NORTH & CO.

Refer to:—HON. JOHN GAYLE., Member of Congress; Messrs. STEWART & EATON, Esqs.; CAMPELL & CHANDLER, Esqs.; J. G. LYON, Esq., U. S. Marshal; Messrs. LEBARON & SON; J. C. HODGES, Esq.; COLLIER H. MINGE, Esq.; Messrs. L. MERCHANT & Co.; J. H. RIVERS & Co.; ROBERT DESHA & Co.; DAVID STODDER, Esq.; LUTHER TUCKER, Esq., publisher "Cultivator" and "Horticulturist," Albany; A. B. ALLEN, Esq., Editor "American Agriculturist," New-York; WM. H. STARR, Esq., Editor "Farmer and Mechanic," New-York.

Nov. 1.—3teom.





American Institute  
GOLD MEDAL

New-York Agricultural Warehouse,  
BY A. B. ALLEN & CO.

Nos. 189 & 191 Water Street, New York.

**THE Implements** kept, embrace upwards of FIFTY different kinds of Plows, a great variety of Harrows, Cultivators, Rollers, Seed Sowers, Horse Powers, Grain Cradles, Threshing and Fanning Machines, Mills, Hay Cutters, Corn Shellers, Shovels, Spades, Hoes, Scythes, Rakes, Wagons, Wheels, Caris, Wheelbarrows, Pumps, Rice Threshers and Hullers, Road Scrapers, Axes, Chains, &c., &c. These implements are mostly made up from NEW and HIGHLY IMPROVED patterns, and are warranted to be of the best materials, and put together in the strongest manner, and of a superior finish.

**Horticultural Tools**—A complete assortment.

**Castings, Skeleton Plows, Harrow Teeth, and Iron work** of all kinds done to order in the cheapest and best manner.

**Steam Engines, Sugar Boilers, Sugar Mills, Saw Mills, Kettles, Cauldrons, &c., for Plantations.**

**Wire Cloth and Sieves**—Different kinds and sizes kept constantly on hand.

**Seeds for the Field and Garden**—Such as Improved Winter and Spring Wheat, Rye, Barley, Oats, Corn, Beans, Peas, Turnip, Cabbage, Beet, Carrot, Parsnip, Clover, and Grass Seeds, improved varieties of Potatoes, &c., &c. These are warranted fresh and superior of their kind.

**Fertilizers**—Peruvian and African Guano, Lime, Plaster of Paris, Bone Dust, &c., &c.

**Fruit and Ornamental Trees and Shrubs**—Orders taken for these, and executed from a choice of the best Nurseries, Gardens, and Conservatories in the United States.

**Horses, Cattle, Sheep, and Swine**—Orders received for stock of all kinds, to be executed to the best advantage, and shipped in the most careful manner.

**Agricultural Books**—A general and varied assortment of these for sale.

**Produce on Consignment**—All kinds of Agricultural Produce will be received for sale on consignment.

**A Catalogue** of the above Implements, Seeds, &c., of 100 pages, handsomely illustrated with plates, will be forwarded by mail, when requested, post paid.

Subscriptions to the AMERICAN AGRICULTURIST received. Price \$1 per year, for 12 numbers, of 32 pages each; royal octavo, numerous illustrations and descriptive of the latest improvements on all subjects connected with agriculture. Seven volumes now printed, and handsomely bound, at \$1.25 each. Jan. 1, 1848—It

### THE HORTICULTURIST,

AND

Journal of Rural Art and Rural Taste.

EDITED BY A. J. DOWNING,

Author of "Fruits and Fruit Trees of America," "Landscape Gardening," "Cottage Residences," &c., &c.

**THIS** work is published by the proprietor of "The Cultivator," at his office in Albany, to whom all orders should be sent. Two volumes are completed, and the third is now in course of publication. The numbers are issued promptly on the first of the month, each containing 48 pages, and embellished with an engraved frontispiece, and illustrated with numerous engravings of Rural Cottages and Villas, Farm-Houses, Gates, Lodges, Ice-Houses, Vineries, Fruits, Flowering Shrubs and Plants, &c., &c.

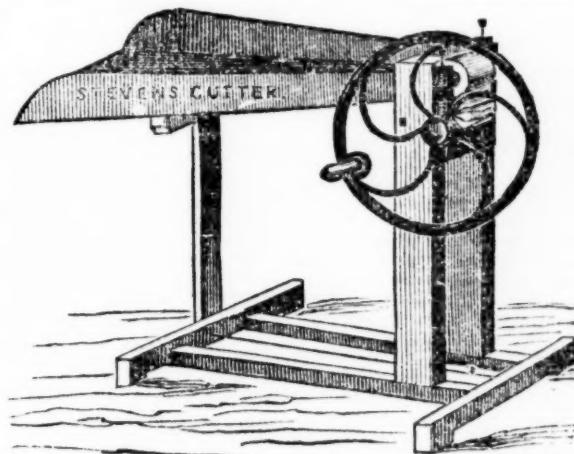
**TERMS**—Three Dollars per year—Two copies for Five Dollars.

Subscribers may commence with the volume in July, or with the January number. The back Vols. and back Nos. can be furnished.

Agents for "THE CULTIVATOR," will do us a favor by acting also as Agents for "THE HORTICULTURIST," a work designed to promote rural taste and rural art, not only in the orchard and the garden, but in all that gives character and pleasure to a country residence.

LUTHER TUCKER.

Albany, January, 1849.



Stevens' Spiral Hay and Straw Cutters.

**THE** subscriber wishes to call the attention of the public to the following extract from the report upon Hay cutters, of the committee on New Inventions, Machinery, Optical and Philosophical Apparatus, Edge Tools, &c. &c. of the Worcester County Mechanics' Association, at their first exhibition at Worcester, Mass., Sept. 26th, 27th, 28th, 29th, 30th, 1848. This committee was composed of five residents of Worcester county, each and every one being *practical mechanics*, inventors and manufacturers of machinery of the highest character, and known as such throughout the country—and all personally acquainted with the several makers of Cylinder Hay Cutters, as also the several kinds of machines made by them.

They say: "That all articles reported upon by them have undergone full scrutiny, and in every case where practicable, have subjected the claims of merit to severe tests."

"Instructions having been received by the committee, authorising them to act upon any subject involving questions of mechanical merit—such action not to interfere with the awards of other committees." Upon an application being made to them for a mechanical analysis of the action of spiral and straight lines as cutting edges on the surfaces of cylinders, the committee deemed it a proper subject for their action,—and in their report they say:—

"A true radial spiral, of whatever pitch or angle, has its plane at all times perpendicular to the axis around which it winds; and at all points where it comes in contact with a cylindrical surface of whatever diameter, it will point directly to, and the pressure will be in perpendicular lines to the cylinder's axis. If then any object passes between the points of contact, it will be severed by direct pressure—and such is the action of spiral blades or knives now under consideration.

"When straight lines are carried diagonally across the surface of a cylinder in the form of a cutting edge, (or any other) the plane of the edge can at no time or place form a radial or perpendicular line with the axis; and consequently the pressure at the points of contact is not in a line with the centre of the axis and plane of the edge, but either in advance or rear of both cylinders; and such is the arrangement of the cylinder, with straight knives or blades now under consideration."

"First. The strain upon the edge of the knife is oblique to its rotating action—the most dangerous that it can possibly sustain—being precisely that of a pair of shears with a loose joint."

"Second. A loss of power; for whatever angle the plane of the cutting edge makes with the perpendicular of the cylinder's axis, the measurement of the base of such angle must be deducted from the leverage working the cylinders."

"We therefore *unanimously* consider that the *Radial Spiral* knives require less power and are *less subject to breakage*, and also, much *less difficult to keep in repair* than the straight diagonal knives, which last are, in the opinion of the committee, at *Variance with all true mechanical economy*."

**STEVENS' SPIRAL HAY CUTTER** being constructed precisely upon the above principles, and at the same time the most simple of all spiral cutters in use, and as simple as any kind with straight diagonal knives—and having a *newly invented and patented substance superior to dry hide* for the roller, upon which the knives act, it is in all respects as good, if not the best machine, for the purpose, in use—and at the same time, the prices of machines of equal size, average considerably lower than any other kind, with either spiral or straight knives.

They are kept constantly on hand, at wholesale and retail, at manufacturer's prices—and all warranted—at the Albany Agricultural Warehouse, by

H. L. EMERY.

N. B. If reports of committees are to be considered, and the public to be guided thereby, it is of the utmost importance that proper persons are selected as judges. Such as have both practical talent, and time to bestow in making their examinations; and at the same time such men as are known and have the confidence of the public. But such is the hurry, bustle, little time appropriated, and most frequently the poor selection of judges, that the reports at our State and County Fairs, exert comparatively a small influence for improvement, particularly on agricultural machinery, to what is in their power, under a more practical and efficient organization of their committees.

Jan. 1—It.

### School of Applied Chemistry,

Attached to the "Department of Philosophy and the Arts," in Yale College.

B. SILLIMAN, JR., Professor of Chemistry and the kindred Sciences applied to the Arts.

J. P. NORTON, Professor of Agricultural Chemistry.

**T**HE Instructors in this department have opened a commodious laboratory on the College grounds, where they are now prepared to receive pupils in special and general chemistry. The system pursued with those who design to become chemists or to study the science extensively, is thorough and complete. Such studies always commence with an extended course of qualitative examination of unknown substances—and in due time pass through a series of varied quantitative determinations. To those who wish to follow special investigations connected either with the arts, agriculture or pure science, every facility will be afforded, both in organic and inorganic analysis.

Prof. B. SILLIMAN, JR., will instruct particularly in general elementary and analytical Chemistry, Mineralogy and Metallurgy, with special reference to their application to the useful arts. He will also give a course of Lectures on Mineralogy and Metallurgy, continued through the summer term. During the fall and earlier part of the winter, he will also carry a class through a course of elementary Chemistry, in elucidation of the regular course on this subject in the Academical department.

The instruction in the professorship of Agricultural Chemistry is intended to unite, as much as possible, practical views with theory; to give the untaught farmer an opportunity to become acquainted with so much of science as shall enable him to reason upon his daily pursuits, and to understand the great principles upon which good cultivation must depend, presented in so plain a form as to be within the comprehension of all. Few chemical terms will be employed in the lectures, and those only of the simple explanations; they will thus be understood by those who have never devoted any attention to the subject. A regular course of lectures will be delivered in the winter of each year, commencing in January and continuing about two months, there being four lectures in each week. The subjects of the course will be—the composition and nature of the soil, the plant, and the animal—theories of rotation of crops, and of feeding—modes of draining—the different kinds of manures—their value and how beneficial, the improvement of waste lands, &c., &c. Text-books will be indicated for study during leisure hours.

In connection with the lectures will be a short course of elementary Chemistry, for such as wish to study somewhat more of Chemistry than is given in the course, and to qualify themselves for making ordinary testings and qualitative examinations of soils, manures, &c.; this course will occupy two hours of five days in each week during two months.

The fee for the Lectures on Agricultural Chemistry will be \$10. That for the Elementary Chemical Course, including apparatus and re-agents, will be \$25.

Students in Analytical Chemistry are allowed to work in the laboratory during the whole day; glass will be furnished (with charges for breakage,) also the ordinary re-agents and balances for the use of those who are so far advanced as to require them. There will be frequent recitations, and the students will receive the constant attention of one or both of the professors. The fee for this class will be \$20 per month.

The vacations will correspond with those in the Academical departments, viz:—six weeks from the third Wednesday of August; two weeks from the first Wednesday in January; and four weeks from the third Wednesday in April of each year. Sessions begin with the close of each vacation, and are in length respectively, 14—14 and 12 weeks.

Students in this school will enjoy all the advantages to be derived from the extended means of the institution in Libraries, Instruments and Collections. The Mineralogical and Geological collection is widely known as one of the best in the country, and there are smaller collections in the possession of the Professors. Those who desire it can have access to the Lectures on Chemistry, Mineralogy and Geology, by Prof. B. SILLIMAN, Senior, and to the lectures on Natural Philosophy, by Prof. D. OLNSTEAD.

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The department of Philosophy and the Arts in Yale College, of which the School of Applied Chemistry is a part, has been organized with a view to meet the wants of those who desire to follow the studies embraced under it further than they are pursued in a collegiate course. Those who desire further information on this subject, are referred to the annual catalogue of the institution for 1847, '48.

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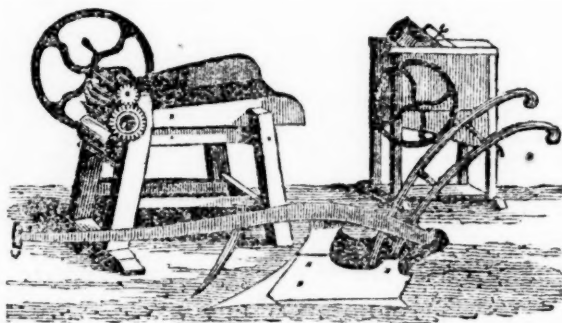
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Horace Greeley, of the N. Y. Tribune.

HOLDEN'S DOLLAR MAGAZINE.—The September number of this work has been received, and to simply say that it is a valuable publication, would not be doing justice to its merits. It is the best of Magazines, and must soon assume its place at the head of the literary press.—Democrat, Bloomsbury, N. Y.

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C. W. HOLDEN,  
109 Nassau Street, New-York.

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Jan 1—1m\*

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